SYMPHONY NO. 2 "*SYMPHONY OF CHORALES*" BY LUKAS FOSS

A STUDY IN COLLAGE AND MUSICAL BORROWING

by

Alec Powers

July, 2018

Director of Thesis: Dr. Mark Richardson

Major Department: Music Theory, Composition, and Musicology

In his second symphony, the *Symphony of Chorales* (1958), Foss seems to be struggling to merge two identities, his Stravinskian Neoclassicism and his improvisation-influenced experimentalism. The mature Foss is first able to blend these two disparate styles with the premiere of *American Cantata* in 1976, while his third (1991) and fourth (1995) symphonies show a mastery of this sort of collage. The second symphony is significant because it shows one of the composer's first attempts to reconcile two very disparate compositional approaches – yet this same process of eclectic reconciliation would fascinate Foss throughout the rest of his life, and impact other major works, such as *Baroque Variations*, *American Cantata*, *Renaissance Concerto* and many others. In this thesis, the tonal language of Foss's *Symphony of Chorales* will be examined within the context of his earlier and later styles, and the impact of collaged source material (Bach's chorale harmonizations) on the motivic and formal structure of the symphony will be discussed.

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A STUDY IN COLLAGE AND MUSICAL BORROWING

A Thesis

Presented to the Faculty of the

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In Partial Fulfillment of the Requirements for the Degree

Master of Music

by

Alec Powers

July, 2018

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Chapter 1: Introduction

Lukas Foss is often considered one of the forerunning American composers of the mid to late 20th century, though much of his music remains unstudied. Some of his early "American" music such as *The Prairie* (1944) and *Capriccio* (1946), and his more avant-garde music such as *Baroque Variations* (1967) and *Time Cycle* (1960), has been discussed in academic literature, but the works between and after these two phases are not often discussed. In his second symphony, the *Symphony of Chorales* (1958), the composer seems to be struggling to merge two identities, his Stravinskian Neoclassicism and his improvisation-influenced experimentalism. The mature Foss is first able to blend these two disparate styles with the premiere of *American Cantata* in 1976, while his third (1991) and fourth (1995) symphonies show a mastery of this sort of collage. The second symphony is significant because it shows one of the composer's first attempts to reconcile two very disparate compositional approaches – yet this same process of eclectic reconciliation would fascinate Foss throughout the rest of his life, and impact other major works, such as *Baroque Variations*, *American Cantata*, *Renaissance Concerto* and many others. In this thesis, the tonal language of Foss's *Symphony of Chorales* will be examined within the context of his earlier and later styles, and the impact of collaged source material (Bach's chorale harmonizations) on the motivic and formal structure of the symphony will be discussed.

I. THE LITERATURE

To date, there has been a limited amount of study done on the works of Lukas Foss. In his 1976 dissertation, *The Choral Music of Lucas Foss*, Bruce Browne investigates four of the most significant choral works from Foss's early style period, and the only two from his middle period

that had been composed.[1] The first four works (*The Prairie*, *Behold: I build an house*, *A Parable of Death*, and *Psalms*), which comprise the main body of this dissertation, are written in Foss's Neoclassical idiom, while the latter two (*Fragments of Archilokos* and *Three Airs for Frank O'Hara's Angel*) trace his progression into a more avant-garde approach. This dissertation is the only published study of works from the composer's early style period and does not include any orchestral, chamber, or solo works. The next important study is a dissertation by Mary Shea, *The Middle-Period Compositions of Lukas Foss: A Study of Twenty-Three Avant-Garde Works*.[2] This study primarily deals with Lukas Foss's experimental middle period and its ramifications upon his late period. It begins with *Time Cycle* (1960) and continues through Foss's final middle-period composition *Folksong*, and then goes through eight pieces from Foss's third style period. The final significant study of the works of Lukas Foss is *An Overview of the Third Period Compositional Output of Lukas Foss, 1976—1983*, written by Joseph Bassin in 1997.[3] This dissertation deals with all third period works Foss had completed up until the time the dissertation was written. Foss's third period is characterized by a fusion of the approaches of his first and second style periods, leading to an eclectic marriage between tonality and experimentalism.

Two recordings of the *Symphony of Chorales* exist: one conducted by Foss himself in the Boston premiere by the Boston Symphony Orchestra (1958),[4] and a recent studio recording by

[1] Bruce Sparrow Browne. *The Choral Music of Lucas Foss*. D.M.A. diss, The University of Washington. 1976.
[2] Mary Elizabeth Shea. *The Middle-Period Compositions of Lukas Foss: A Study of Twenty-Three Avant-Garde Works*. PhD. diss., Kent State University. 1997.
[3] Joseph Philip Bassin. *An Overview of the Third Period Compositional Output of Lukas Foss, 1976--1983*. Ed.D. diss., Teachers College, Columbia University. 1987.
[4] Lukas Foss, composer and conductor. *Symphony of Chorales*. Recorded by the Boston Symphony Orchestra, October 31, 1958. Recording Guarantee Project, American International Music Fund, Koussevitzky Music Foundation, tape reel.

the Boston Modern Orchestra Project (BMOP) (2015) conducted by Gil Rose.[5] Aside from the higher production quality of the studio recording by BMOP, the most notable differences between the two recordings are the considerable tempo discrepancies in movements 1 and 2. Movement 1, which is marked 𝅗𝅥 = 132, is often taken nearly 20 bpm slower in the BMOP recording, and the ♩ = 46 tempo specified in movement 2 is frequently at least 10 bpm slower. This results in both movements 1 and 2 being more than two minutes longer in length in the BMOP recording than in their counterparts in the live recording from 1958. This tempo alteration is understandable due to the considerable virtuosity the frantic tempo demands, especially in movement 1. This pacing seems to cause Foss to sacrifice control of the orchestra in certain sections to achieve his desired tempo.

Aside from the dissertations and recordings, other sources pertaining to the subject at hand are mostly secondary and historical in nature, as opposed to primary or analytical. Various articles written by and about Lukas Foss are used, including: program notes from the BMOP recording and a NY Phil performance in 1959,[6] biographical articles written about Foss in various books/journals, various audio and transcribed interviews from Yale University's Oral History of American Music,[7] a series of thirteen transcribed interviews done by Mary Shea for her dissertation on Foss's middle-period works,[8] and an article Foss wrote about his former teacher

[5] Lukas Foss. *Lukas Foss: Complete Symphonies*. Gil Rose, conductor/producer. Boston Modern Orchestra Project, performance. CD. BMOP, 2015.
[6] Irving Kolodin. "5960th Concert". Program notes for Lukas Foss's *Symphony of Chorales*. Leonard Bernstein conducting the New York Philharmonic Orchestra. New York: Carnegie Hall, April 12, 1959.
[7] Ev Grimes, Vivian Perlis, and Russell Platt. "Interview with Lukas Foss." *Major Figures in American Music, Oral History of American Music*, Yale University. 1986-2005. http://discover.odai.yale.edu/ydc/Record/3586728.
[8] Shea, *The Middle-Period Compositions of Lukas Foss*, 249-319.

Hindemith after his death.[9] Archival study of the "Lukas Foss Papers"[10] and "Serge Koussevitzky Archives"[11] from the Library of Congress (Washington, DC) has been conducted to analyze correspondence concerning performances of the piece, details of the commission, and study of original manuscript scores. Finally, a biobibliography by Karen Perone serves as the backbone for a significant portion of the original research.[12]

In conclusion, the investigation of archival resources reveals that the only primary sources available are two recordings, a photocopy of Foss's holograph manuscript score, and minimal correspondence concerning the piece and its commission found in the "Lukas Foss Papers" and "Serge Koussevitzky Archives". The work was commissioned by the "Koussevitzky Music Foundation" and dedicated to Albert Schweitzer at the request of the "Friends of Albert Schweitzer Foundation". The commission was extended to Foss informally in a letter sent on July 9th, 1954, and formally in another letter sent on August 12th, 1954. The commission's conditions state that the work be an "orchestral composition" and that it be offered "to the Los Angeles Philharmonic Orchestra… for its first performance", and the honorarium for the commission was $1,000.[13] There are no other conditions to the commission, and the composer retains rights to the composition. Interestingly, the piece was premiered by the Pittsburgh Symphony Orchestra, under the direction of William Steinberg, and the commission says nothing of Albert Schweitzer. It can safely be assumed that the dedication to Schweitzer was due to his well-known reputation

[9] Mel Powell, Lukas Foss, and Easley Blackwood. "In Memoriam: Paul Hindemith (1895-1963)." *Perspectives of New Music* 2, no. 2 (1964): 1-5. http://www.jstor.org/stable/832476.
[10] *Lukas Foss Papers*, circa 1926-2000. Music Division, Library of Congress, Washington, D.C. 2012.
[11] *Serge Koussevitzky Archives*, 1920-1976. Music Division, Library of Congress, Washington, D.C. 2005. Box 20/27.
[12] Karen L. Perone. *Lukas Foss: A Bio-Bibliography*. New York: Greenwood Press, 1991.
[13] *Serge Koussevitzky Archives*, two letters to Lukas Foss.

as a Bach scholar and organist, though whether the dedication came before or after the idea of using Bach chorales is unknown.

Unfortunately, the Bel Air fires of 1962 burned Foss's Los Angeles home to the ground, along with all of his family's possessions and any sketches or manuscripts of the symphony that may have existed. Lukas Foss's wife Cornelia, a painter, also lost a number of valuable original works in the fire.[14] Consequently, there are few primary source materials and even fewer secondary source materials. The only secondary sources which directly address the symphony in question are: the album cover from the BMOP recording, the program notes from a New York Philharmonic performance, and limited conversation concerning the piece contained within Foss's correspondence with life-long friend Leonard Bernstein. Due to the lack of scholarship and analysis of this meticulously-crafted symphony, the researcher determined further study was necessary to contribute to the understanding of this influential composer.

II. A BIOGRAPHY

Lukas Foss (1922-2009) was recognized for his extraordinary talent as a performer and a composer at an early age.[15] In 1933, his family (of Jewish descent) emigrated from Germany to escape the Nazis, and in 1937 he and his family had permanently relocated to New York. By 1945, Foss was the youngest composer ever awarded a Guggenheim Fellowship.[16] In the 1940's and 1950's, he was a promising young composer in what Aaron Copeland called the "American

[14] Grimes, Interview with Lukas Foss.
[15] Shea, *The Middle-Period Compositions of Lukas Foss*, 23.
[16] "Lukas Foss", *Britannica Academic*. 2006.

Stravinsky school".[17] This loose collection of young American composers was largely characterized by the tendency towards a Stravinsky-inspired strain of Neoclassicism.[18] Undoubtedly, Foss's interest in this style of composition was also due, in part, to the influence of Paul Hindemith, with whom he studied at Yale University from 1939-1940.[19] His second symphony, the *Symphony of Chorales*, which was written from 1955-1958, not only stretches the boundaries of his Neoclassical style, but marks one of the final works he would write in his first style period, before his turn to the avant-garde in his second style period.[20] The *Symphony of Chorales* is intriguing because it works directly with source material – indeed, the sources are listed explicitly on the first page of the score. Each movement of this four-movement symphony incorporates at least one melody from a Bach chorale harmonization, while some incorporate more than one. See Appendix A for a transcription of each Bach chorale from the Bach-Gesellschaft in modern clefs.

Foss himself categorized his compositional output into three periods: The Neoclassical Period (1937-1959), the Experimental Period (1960-1975), and the Third Period (1976-1983).[21] Composers that influenced Foss's compositional style were (in chronological order): Hindemith, Copland, Stravinsky, and Ives. Foss says that Hindemith had a hold on him up until the time he began to study with Hindemith, at which point he had already discovered Stravinsky. Though Foss

[17] Ye-Ree Kim. *The Impact of Stravinsky's Serial Conversion on Composers of the 'American Stravinsky School': An Examination of Selected Works for Piano*. (D.M.A. diss., City University of New York, 2006), 1.
[18] This "American Stravinsky School" included a number of prominent composers, such as Arthur Berger, Irving Fine, Lukas Foss, Harold Shapero, and Leo Smit.
[19] Gilbert Chase, David Wright, and Lars Helgert. "Foss, Lukas." *Grove Music Online. Oxford Music Online* (Oxford University Press, 2013), 1.
[20] Matthew Guerrieri and Lukas Foss*. Lukas Foss: Complete Symphonies*. Gil Rose, conductor/producer. Boston Modern Orchestra Project, performance. Program Notes. BMOP, 2015. 11-12.
[21] Bassin, *An Overview of the Third Period Compositional Output of Lukas Foss*, v.

began study with Hindemith in 1939, he also says that until he wrote *The Prairie* (1944), his music was still largely Hindemithian. He defines the period of years from *The Prairie* on as being primarily "Copland with touches of Stravinsky, and then it became more and more Stravinsky."[22] Foss considers *Psalms* (1955) and the *Symphony of Chorales* (1958) to be two works written at the height of his Stravinskian influence.[23] Therefore, within Foss's first period there exists three quite distinct styles, primarily influenced by Hindemith, Copland and Stravinsky.

A major turning point in Foss's stylistic evolution was the founding of the Improvisatory Ensemble at UCLA in 1956. This ensemble, founded in order to free his students from the "tyranny of the printed note", ultimately changed him and led to the initiation of his second style period with the premiere of *Time Cycle* in 1960.[24] Though he does not give a specific date range, Foss says that the last composer to influence him was Charles Ives. The influence of Ives was due to the fact that he "stimulated in us an awareness of the possibility of polyphony of musics, not just of voices".[25] Foss goes on to say that this influence was primarily in effect in the fifties and sixties, and specifically within his work, *Geod* (1969). For the purpose of this study, it is important to note that Charles Ives's idea of a "polyphony of musics" seems to be a particularly compelling notion to Foss within this work, and the influence of Stravinsky is evident throughout. This second symphony took Foss a span of three years to compose, the greatest amount of time taken to compose any of his works. This extended time perhaps speaks to the meticulous and calculated craft with which the work was created. Of the Symphony of Chorales, Foss says

[22] Grimes, Interview with Lukas Foss, 18.
[23] Ibid, 21-22.
[24] Perone, *Lukas Foss: A bio-bibliography*, 3-6.
[25] Shea, *The Middle-Period Compositions of Lukas Foss*, 279-280 & 286.

> That's a big piece based on Bach chorales, in other words, chorales Bach used. And that was for the Friends of Albert Schweitzer. An intricate piece that didn't get too many performances, maybe it will someday. It's not printed, it's on rental - I think at Carl Fischer's. I'm fond of it, but I think I was already getting inwardly ready for new things to happen, which then happen in subsequent pieces, like *Time Cycle*.[26]

III. THE WORK

This thesis will entail a detailed analysis of Lukas Foss's *Symphony of Chorales*. This work is heavily influenced by the Neoclassical style of Stravinsky, the eclecticism of Charles Ives, and very directly by five chorale harmonizations of J.S. Bach.[27] These chorales and their relation to form and motivic development in Lukas Foss's symphony will be the most prominent topic of discussion. Part of the charm of this symphony is its use of collage, which flows directly from Foss's unrelenting mixture of old and new, the classics and the modern. This is evident not only from his compositional output, but from his notoriously diverse musical programing[28] during his time as music director and conductor for various symphony orchestras and music festivals, such as the Brooklyn Philharmonic, Buffalo Philharmonic, Milwaukee Philharmonic and Ojai Festival.[29] These qualities, which are manifest in this second symphony, will become incredibly important elements of his more well-known second and third period works. Since this is the case, the *Symphony of Chorales* is an important work to consider in the course of Lukas Foss's development as a composer.

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[26] Grimes, Interview with Lukas Foss, 42.
[27] *Lukas Foss Papers*, handwritten notes for a lecture.
[28] "In his first concert as Music Director [of the Buffalo Philharmonic Orchestra (one of the country's more conservative orchestras)], Foss featured Buffalo's premiere of both Stravinsky's The Rite of Spring, and Ives' Unanswered Question." See Shea, *The Middle-Period Compositions of Lukas Foss*, 89.
[29] Perone, *Lukas Foss: A bio-bibliography*, 6-7. One observer in the *New York Times* called Foss's time as music director and conductor with the Buffalo Philharmonic Orchestra a "reign of terror".

Written just at the end of his Neoclassical Period, this work includes a number of features which are characteristic of both his first and second style periods. Some of these features include extended techniques such as flutter-tonguing and slides, unusual orchestration (including the tenor saxophone and mandolin), and an unveiled usage of collage.[30] Collage involves the synthesis of pre-composed and newly composed materials that can be antithetical to one another in the creation of a work. Foss does this through the combination of melodies from Bach chorale harmonizations, and his own original harmonizations and countersubjects. This use of collage will be the most important feature of this study, as this single characteristic accounts for the majority of the formal and motivic properties of this symphony.

In the following chapters, the researcher will utilize a number of analytical techniques, as called for by the varied musical material employed by the composer. The primary method of analysis used in each movement is set analysis, due to the post-tonal language of the composer. This is frequently supplemented by references to pitch collections and chord symbols. Though functional tonal analysis is not frequently employed on the smaller scale, it is often employed to decipher elements of form, and ways in which the composer defies traditional functional formal relationships. Unless specifically notated, any transposing instruments from the musical examples in the following chapters will not be transposed to concert pitch. Transposing instruments in this symphony include the following: English Horn (F), Clarinet (Bb), Bass Clarinet (Bb), Tenor Saxophone (Bb), Horn (F), and infrequent use of an A Trumpet (A).

[30] Shea, *The Middle-Period Compositions of Lukas Foss*, 3-5.

Chapter 2: Bach's Chorale Harmonizations

The *Symphony of Chorales* is unique in its explicit use of melodies from Johann Sebastian Bach's chorale harmonizations. Many composers embed borrowed themes from another composer within a particular movement, or even compose a series of variations based upon a beloved composer's work. Still other composers borrow themes from their cultural or religious heritage, or melodies that played a formative role in their childhood. However, very few composers will confess to their use of source material, and even fewer still employ the symphonic genre to do so. Stravinsky is a famous example of this denial of source material, specifically of the importance of Russian folk melodies within *Le sacre du printemps*.[31] Foss however is well known for his use of a technique called collage, in which he overtly borrows well-known masterworks, folk tunes, religious songs, etc. and subjects them to his own treatment.[32] This differs from musical borrowing in the contrasting nature of the collaged material and composed material. This technique is most recognizable within his Middle-Period works, due to the highly contrasting nature of the collaged material and the newly composed material, but nonetheless plays a critical role throughout his compositional career and very actively within this work.

I. THE LUTHERAN CHORALE TRADITION

This technique intimately connects Foss to the tradition of Bach himself, who very freely integrated the themes and motives of other composers within his own works. In Albert Schweitzer's two volume book by the composer's name, it is commented on at some length that

[31] Richard Taruskin. "Russian Folk Melodies in 'the Rite of Spring'." *Journal of the American Musicological Society* 33, no. 3 (Fall, 1980): 501.
[32] Shea, *The Middle-Period Compositions of Lukas Foss*.

Bach not only utilized the themes of other composers frequently, but it was at times "a necessity" for him, in order to "stimulate his own creative activity".[33] This is not to say that Bach was unable to create his own themes, but that he was intimately connected to his musical-religious heritage and frequently drew upon these in a way consistent with the common practice of the day. This certainly seems to be the case for Foss as well, who frequently throughout his career employs the use of childhood tunes, religious songs and masterworks in a creative and eclectic way. Schweitzer goes on to describe how some of Bach's more famous themes, such as that from the G minor organ fugue (BWV 542), are in fact borrowed themes. This was not only the case within Bach's purely instrumental work but was ingrained into the very fabric of his Lutheran religious musical heritage.

With the dawn of the reformation in the early 16th century, the reformers faced the necessity of forging a new church music out of the Latin mass. In Germany, much of the mass had already been sung in the vernacular, which led to the formation of a body of sacred German poetry, even before the reformation. Martin Luther was able to draw from this existing liturgy and the translation of biblical and mass texts from Latin for the new worship service. By the beginning of the 17th century such well-known hymn writers as Martin Rinkart, Johann Franck, and Paul Gerhardt were actively contributing to this body of literature.[34] The melodies for this new sacred literature were appropriated from sacred and secular sources alike. Many chorale melodies were formed and adapted from the vestiges of chants and masses by writers such as Martin Luther and Johann Walther, and many folk melodies by secular composers like Heinrich

[33] Albert Schweitzer. *J S Bach, Vol. 1*. Translated by Ernest Newman (London: Adam & Charles Black, 1950), 195-197.
[34] Schweitzer. *J S Bach, Vol*. 1. 6-13.

Isaac and Hans Leo Hassler were pressed "into the service of the church".[35] There were church musicians (such as Johann Crüger) who composed original melodies, but by the time of Bach the creative period of German religious poetry and the chorale was coming to an end.[36] This active "borrowing" and repurposing of musical material is deeply ingrained into the fabric of Lutheran church music, and Bach's many settings of modal chorale melodies speak of the degree to which he was willing to engage with, and envelop, tradition within his own more "modern" style.[37]

II. THE CHORALE HARMONIZATIONS

This leads to a discussion and brief analysis of the Bach chorale harmonizations used by Foss within his *Symphony of Chorales*. In a note Foss composed for a Boston Symphony program, he says "one might describe the individual movements as extended symphonic chorale preludes".[38] The text is never vocalized, though perhaps the character of the text is represented by the character of each movement and its respective harmonies. No direct quotations of Bach's harmony are given, though the present study will indicate moments throughout each movement where Foss seems to have had Bach's harmony in mind. Foss includes his own harmonizations for these "chorale preludes", adding himself to the tradition of German composers who engaged with and reinterpreted these sacred texts and melodies, which are so deeply a part of the German musical heritage. Each chorale used will undergo a brief analysis as relevant to its application within Foss's symphony, and any notable features will be discussed. As mentioned above, many

[35] Ibid. 15-18.
[36] Ibid. 22
[37] Eric Chafe. *Analyzing Bach Cantatas* (New York: Oxford University Press, 2003), 3.
[38] Kolodin. "5960th Concert".

of the chorale melodies Bach harmonized were modal tunes, so modality and the post-modal influence of Bach's harmonic language will bear some significance.

The source given by Lukas Foss in the score of the work for the chorale harmonizations is the Bach-Gesellschaft, so all references in this chapter, and the score recreations within the appendices are drawn from this source. The Bach-Gesellschaft (Bach-Society) was founded by Robert Schumann, Otto Jahn, C.F. Becker, Moritz Hauptmann and the Leipzig firm of Breitkopf & Härtel with the intention of publishing a complete and unedited critical edition of Bach's works.[39] In the years from 1851-1900, forty-six volumes of Bach's works were published by this society, which are collectively known as the Bach-Gesellschaft Ausgabe (Bach-Society Edition). It is apparent by Foss's numbering of the chorales that they are drawn from volume 39 of the Bach-Gesellschaft Ausgabe (furthermore "BGA"), since the numbers Foss attributes to the chorales are not compatible with any other publication's numbering.[40]

The 39th volume of the BGA is drawn directly from C.P.E. Bach's edition of three hundred seventy-one chorales collected and edited for Breitkopf from 1784-87.[41] C.P.E. Bach's edition consists of multiple duplicates, chorales which have been extracted from their extant larger works (such as cantatas, passions, etc.), and chorales which presumably belong to missing larger works. The BGA keeps the chorales belonging to larger extant works confined to their original works in separate volumes, purges the chorales of duplicates, and numbers the remaining 185 chorale harmonizations in alphabetical order in volume 39. Since the numbering of this volume

[39] Barbara Wiermann. "Bach-Gesellschaft". *Grove Music Online*. *Oxford Music Online*. Oxford University Press. http:////www.oxfordmusiconline.com/grovemusic/view/10.1093/gmo/9781561592630.001.0001/omo-9781561592630-e-0000001701

[40] "Bach Chorale Listing." *IMSLP*. http://imslp.org/wiki/Bach_Chorale_Listing.

[41] Lori Burns. *Bach's Modal Chorales* (Stuyvesant, NY: Pendragon Press, 1995), vii-ix & 225-228.

is unique to any other publication of Bach chorales, it is clear that Foss was specifically drawing upon these versions, and not any others, for his symphony. This does not mean Foss was unaware of other editions or of the fact that some of the chorales chosen exist as organ preludes, wedding chorales, or within cantatas, but that Foss chooses to draw specifically from this source.

Movement 1 – Chorale No. 90

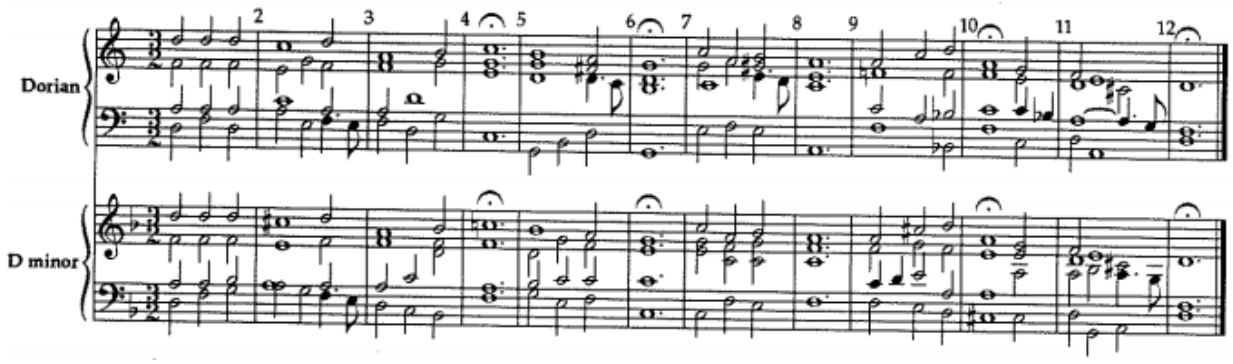
The chorale harmonization used for the first movement is "Hilf, Gott, las mir's gelingen", Chorale No. 90 within the BGA (BWV 343).[42] This is the most explicitly modal chorale of those used by Foss, only containing one flat for the key of G "minor", which clearly denotes the Dorian transposition (see Appendix A). The $\hat{6}$ is conspicuously absent from this chorale's melody, which would be a determining factor in the modal question presented by this harmonization. The only other harmonization of this chorale melody is the Lenten organ prelude BWV 624 from the Orgelbüchlein.[43] The melody in this prelude includes the $\hat{6}$ as a passing tone between D-F in measures 2 and 3, where the chorale harmonization does not (see Appendix A).[44] The $\hat{6}$ has been lowered to an Eb however, making this harmonization more consistently minor than Dorian.

Both the melody, with its cadential point on the $\flat\hat{7}$ (F) in m. 12, and the harmony lend weight to the argument for a Dorian setting. In Lori Burns' book *Bach's Modal Chorales*, she claims that harmonic diversity is one of the primary indicators of a Dorian harmonization (versus a minor harmonization), illustrated by an example from Knecht's *Vollständige Orgelschule* (see

[42] Johann Sebastian Bach. *Bach-Gesellschaft Ausgabe*. Edited by Franz Wüllner. Vol. 39. Leipzig: Breitkopf Und Härtel/Bach Gesellschaft, 1892.
[43] Stainton Taylor. *The Chorale Preludes of J.S. Bach: A Handbook* (London: Oxford University Press, 1949), 48.
[44] Johann Sebastian Bach. *Bach-Gesellschaft Ausgabe*. Edited by Wilhelm Rust. Vol. 25. Leipzig: Breitkopf Und Härtel/Bach Gesellschaft, 1878.

Fig 2.1).[45] This theory of harmonic diversity is elaborated within Eric Chafe's concept of the modal system as a series of overlapping hexachords systems.[46]

Figure 2.1: *Burns, Bach's Modal Chorales. 32.*



In this example by Knecht, a given Dorian progression's harmonic motion for each phrase is i-VII-IV-v-III-i, whereas the minor counterpart to this example is i-III-V-i. A similar harmonic diversity is evident within Chorale No. 90 (BGA), which turns to the major subdominant at the end of the first phrase (m. 4) and tonicizes the subtonic from mm. 9-12 (i-IV-VII-i) (see Appendix A). While Bach's chorale does not have quite the same amount of diversity as the Knecht example, it does thwart the tonal norm of centricity around the relative major and dominant by focusing on the more modal IV and VII. Burns also includes "Hilf, Gott, lass mirs gelingen" (BWV 343) as a Dorian chorale in her appendix of representative modal chorales by Bach.[47]

Movement 2 – Chorales Nos. 77 & 78

The second movement is an anomaly, due to its listing of Chorales Nos. 77 and 78, both harmonizations of the chorale "Herr, ich habe missgehandelt" (BWV 330 & 331). There are no

[45] Burns, *Bach's Modal Chorales*. 30-33.
[46] Eric Chafe. *Monteverdi's Tonal Language*. New York: Schirmer Books, 1992.
[47] Burns, *Bach's Modal Chorales*. 231.

other harmonizations of this chorale by Bach available, though an existing libretto by Picander indicates the chorale was used by Bach in his missing *St. Mark Passion*.[48] This Passion was believed to have been premiered in Leipzig for services on Good Friday, March 23rd 1731. Many reconstructions of this Passion have been attempted over the years, and since it is assumed to have been a "parody"[49] (meaning the majority of the arias and chorales would have been recycled from previous works), most of these reconstructions include either Chorales Nos. 77 or 78. This does not bear significant weight for the present discussion however, as there is no way to know whether Bach composed a new harmonization for the 1731 performance or used the above extant ones. There is a chance, however, that one of these chorales was harmonized specifically for the missing *St. Mark Passion*, since these chorales do not belong to any other extant work.

Both Chorales Nos. 77 & 78 are fairly typical examples of harmonizations adhering to the minor scale within the tonal system. In both chorales, the cadential goals of the four phrases are as follows: i-V-III-i. This tonal plan is actually outlined as a basic tonal progression by Knecht (see Fig. 2.1), with the dominant and relative major being reversed in order. In both chorales, the cadence on V is only a brief half cadence, but the turn to the relative major becomes a prolonged tonicization (mm. 5-7 in Chorale No. 77, mm. 6-9 in Chorale No. 78). The greatest difference between the two harmonizations seems to be the rhythmic pace: a quarter-note rhythm is maintained throughout Chorale No. 78, while a slightly elaborated eighth-note rhythm is maintained in Chorale No. 77 (see Appendix A). In the preface to the score, Foss lists both

[48] James A. Altena. "Review: BACH: (Reconstructed by Heighes) St. Mark Passion/BACH: (Reconstructed by Koopman) St. Mark Passion." *Fanfare - the Magazine for Serious Record Collectors* 38, no. 2 (Nov, 2014), 321-326. http://search.proquest.com.jproxy.lib.ecu.edu/docview/1627871042?accountid=10639.
[49] Wilhelm Rust. *Bach-Gesellschaft Ausgabe*, Vol. 20.2, Preface (Leipzig: Bärenreiter, 1873), VIII–IX.

chorales as source material for movement 2, but only the melody from Chorale No. 78 is notated (see Fig. 4.2, pg. 52). However, at the top of the first page of the score of movement two, Foss lists only Chorale No. 77 as source material (see Fig 4.1, pg. 51). This may have been an incidental error by the composer, but it leads the author to believe that Foss may have intentionally drawn harmonic content from Chorale No. 77.

Movement 3 – Chorale No. 139

The third movement makes use of Bach's harmonization of Chorale No. 139, "Nun ruhen alle Wälder" (BWV 392). This chorale text is found in only one other place in Bach's repertoire, which is a short chorale prelude in the style of a fughetta from the miscellaneous chorale preludes collection (BWV 756). The melody, however is set by Bach to three different texts: "Nun ruhen alle Wälder", the three harmonizations of "O Welt, sieh' hier dein Leben" that follow (Chorales Nos. 140-142), and "In allen meinen Taten". The mentioned chorales collectively appear in Cantatas Nos. 13, 44 and 97, in the *St. Matthew* and *St. John Passions*, and in Chorales Nos. 139-142 (BGA). The originally Ionian melody is generally believed to have been penned by the well-known composer Heinrich Isaac in the late 15th century, to set the secular text "Innsbruck, ich muss dich lassen", (later contrafacted to "O Welt, ich muss dich lassen").[50] In both the secular and the sacred settings of these texts, there is a motif of departure or death (sleep). For instance, the text to "Innsbruck, ich muss dich lassen" speaks of a traveler leaving his lover behind, and the reference to sleep in the first verse of "Nun ruhen alle Wälder" is clearly a metaphor for death

[50] Thomas Braatz and Aryeh Oron. "Chorale Melody: O Welt, Ich Muss Dich Lassen / Nun Ruhen Alle Walder." *Bach-Cantatas*. 04/2006-01/2009. http://www.bach-cantatas.com/CM/O-Welt-ich-muss.htm.

by the third verse. Though the sacred text is laced with the Christian hope of eternal life, Foss seems to take advantage of this motif within his mischievous setting of the third movement.

The Chorale No. 139 (BWV 392) is in the key of Bb major and is primarily tonal. The cadential goals of each phrase are: I-V-V-V/ii-V-I. With the exception of the first cadence on V in m. 4 which is briefly tonicized within that measure, the other V cadences are simple half cadences. The cadence on the V/ii in m. 8 is a striking example of non-functional modal harmony, immediately reverting to the parallel G minor in the next beat, and quickly returning to Bb major in m. 9 (see Appendix A). Another interesting feature of this chorale is that though every harmonization by Bach is in common time, Foss's listing of the melody on the cover page of his score is in triple meter (see Fig. 5.2, pg. 71). Not only is it in triple meter, but it is in a triple meter that can easily be (and will be) interpreted as a compound time signature. This new meter suits the melody and text quite well and contributes to the character typically associated with a Scherzo movement for Foss's third movement.

Movement 4 – Chorale No. 133

The final chorale harmonization to be discussed is that used within the fourth movement, Chorale No. 133 "Nun danket Alle Gott" (BWV 386). This is a celebratory chorale and the most widely used of the five discussed throughout Bach's works. It exists as one of three "wedding chorales" (BWV 252), one of the "Eighteen Chorales" (organ preludes) (BWV 657), and as the chorale for the third movement of his Cantata No. 79. Chorale No. 139 also serves as the basis for an incomplete chorale cantata (only missing the tenor part) (BWV 192). The text for this chorale is generally associated with the minister Martin Rinkart, and the cantatas mentioned

above are associated with Reformation Day and Trinity Sunday.[51] The primary tonality of each of these extraneous works is G major, but the Chorale No. 133 setting is in A major.

The tonality of Chorale No. 133 is a very clearly A major, displaying a clear tonal design. The cadential goals of the six phrases are: I-I-V-V-ii-I. The first cadence in m. 2 is a plagal cadence, the second cadence in m. 4 is an authentic cadence, and the third cadence in m. 6 is a half cadence (see Appendix A). Within m. 7 there is a clear turn to the dominant, and the second cadence on the V in m. 8 is an authentic cadence in E major. A harmonic shift occurs in m. 9 to tonicize B minor, confirmed with an authentic cadence in m. 10. In the closing phrase (end of m. 10) Bach makes a clear return to A major via a ii-V-I cadential sequence that concludes the chorale setting.

Foss's use of the Chorales

The five Bach chorale harmonizations used in Foss's *Symphony of Chorales* exhibit a wide range of harmonic and textual characters. Though Bach's harmony seems to be significant within certain sections of Foss's work, this plays a subservient role to the melody and textual implications of Bach's harmonizations for the majority of the symphony. Aside from the modal question present in Chorale No. 90, which lands the listener in some unexpected tonal regions, the other four chorale settings seem to be fairly tonal. In his first movement, Foss subjects the Chorale No. 90 melody to an extraordinarily lively tempo, using the fitting text as an invocation for the work.[52] The Dorian setting of this chorale translates through to Foss's work, giving the generally optimistic text a "minor" character. In Foss's second movement, the fearful character

[51] "Nun Danket Alle Gott BWV 192; BC A 188 - Chorale Cantata (Trinity Sunday)." Bach Digital. https://www.bach-digital.de/.
[52] Kolodin, "5960th Concert".

of the Chorale Nos. 77 & 78 text is preserved by the languishing B-A-C-H motive, which is set to counterpoint with the slowly-moving chorale. The minor character of Bach's harmonization is translated into an extremely chromatic harmonization in Foss's work. The textual and harmonic implications, along with the slow tempo, suit a slow variation movement well.

As previously discussed, Foss translates the simple triple meter of the Bach's Chorale No. 139 harmonization into a compound triple meter within his third movement. This provides the expected meter for a third-movement "Scherzo", giving the melody a light and airy quality. Though harmonization, melody and orchestration are light and relaxed in comparison with the previous movements, the mournful quality discussed of the chorale is certainly present in Foss's harmonization. This is perceived by the gradual "breaking-down" of the chorale melody throughout the third movement, which culminates with a highly chromatic and fragmented version of the chorale melody being given by an off-stage mandolin in the coda.

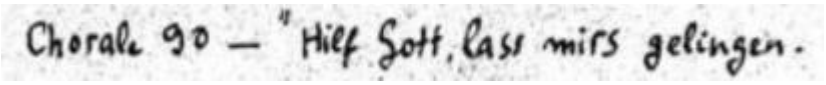
For the final movement, the celebratory Chorale No. 133 is chosen, which expresses thanksgiving to God. Instead of the expected "heroic and traditional" character of this melody, Foss says his fourth movement is at times akin to a "circus piece" with its frantic tempo and "brass tunes parading like marching bands in front of the listener."[53] This gives way to a cyclical episode in the middle of this movement, which combines the final four chorales (77, 78, 139, and 133) in a more relaxed tempo, and in an appropriately regal character. In this way Foss brings unity to all four movements, and provides a setting that, to the modern ear, sounds more typical of the generic chorale style. For Foss's English translation of the chorale texts, see Appendix B.

[53] Kolodin, "5960th Concert".

Chapter 3: Movement 1

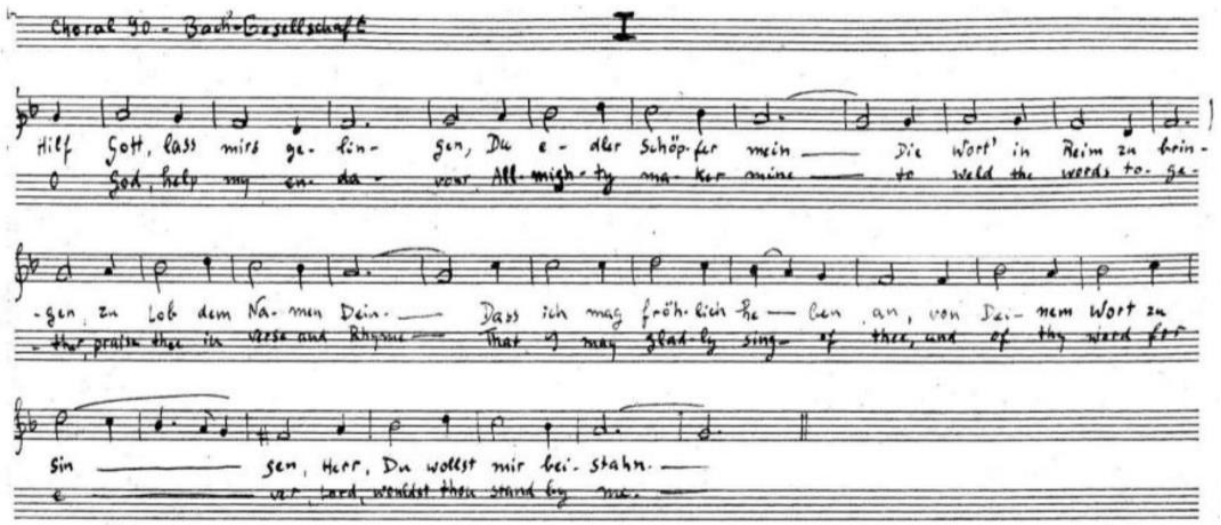
The first movement of the *Symphony of Chorales*, titled *Toccata - Allegro* (𝅗𝅥 = 132), is a loosely constructed sonata-form movement. This is a typical first movement form in the German symphonic tradition, which is characteristic of Foss's Neoclassical style at the time.[54] At the top of the score for this movement, Foss writes:

Figure 3.1: *Movement 1, Chorale No. 90 citation*



The listing of the chorale used will be a consistent feature in each of the movements to come. This chorale will be Foss's main source of motivic content throughout the first movement.

Figure 3.2: *Movement 1, Chorale No. 90 melody*



As discussed in the second chapter, the key signature for this chorale is modal, representing the

[54] William Earl Caplin. *Analyzing Classical Form: An Approach for the Classroom* (New York, NY: Oxford University Press, 2013), 261-262.

G Dorian transposition. Though the 6th scale degree is never used within the melody, Bach's harmonization within Chorale No. 90 utilizes the pitches E and Eb.

The first movement features a 26-measure introduction (see Table 3.1), which is not an abnormal feature in sonata form. The introduction does not feature primary thematic material, though some important accompaniment ideas are established, as well as a harmonic framework. The exposition features two Theme Groups primarily differentiated by the opposing characters of each group (which are energetic and lyrical, respectively), and a section of closing material derived from the first theme within the second Theme Group. The development contains two prominent sections that primarily focus on the first theme and the closing theme from the exposition, though other themes are developed within an accompaniment role. The recapitulation proceeds nearly to the end of Theme Group 1, before it is interrupted by a coda. After the coda, the recapitulation is left incomplete, omitting Group 2 and Closing Material. The coda presents a new theme, as well as thematic material from the rest of Theme Groups 1 and 2, before leading to a fittingly dramatic ending. This movement is a high-speed toccata, with an unusually large amount of motivic material. The composer uses sonata form with some freedom in order to accentuate this character.

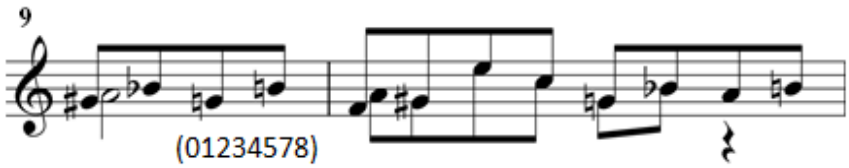
Table 3.1: *Movement 1, Table of formal design*

Section	Subsection	Measures	Tonal Center	Remarks
INTRODUCTION		1-26	A - D	8th note ostinato in violins & "flighty" motive
EXPOSITION		27-207		
	Group 1	27-80 81-116 117-146	D A D	Theme 1 Theme 2 Theme 1'
	Transition	147-163	D	"Flighty" motive, sequential activity, & ascending closing figure
	Group 2	164-180 181-194	F Db - N/A	Theme 1: A Trumpet Theme 2: Tenor Sax
	Closing Material	195-207	F	Derived from Group 2 – Th. 1
DEVELOPMENT		208-300		
	Section 1	208-256	G	Full Chorale, theme 1
	Section 2	256-300	F# - E - D	Closing material, Gr. 1 – Th. 1, retransition
RECAPITULATION		301-419		
	Group 1	301-358 359-390 391-419	A G# E - D	Theme 1 Theme 2 Theme 1 in Harp and thicker string texture
CODA		420-496		
	Section 1	420-451	D - A	Coda motive & Gr. 1 – Th. 2 in brass
	Section 2	452-496	A	Transition, transition motive, and closing theme

I. INTRODUCTION

The introduction begins with, and is largely dominated by, an 8th note ostinato in the strings, which accentuates the tonal center of A from mm. 1-13. This is accompanied by what the author has nicknamed the "flighty" motive in the upper woodwinds and at times the 1st violins (see Ex. 3.1). The "flighty" motive changes over time, but its most basic characteristic is a wedge-shape design that expands out chromatically from a tonal center (see Ex. 3.1, m. 9). The following example represents the normal version of the "flighty" motive, and one which will be repeated frequently throughout the entirety of this movement.

Example 3.1: *Movement 1, Introduction, "flighty" motive, flutes, mm. 9-10*

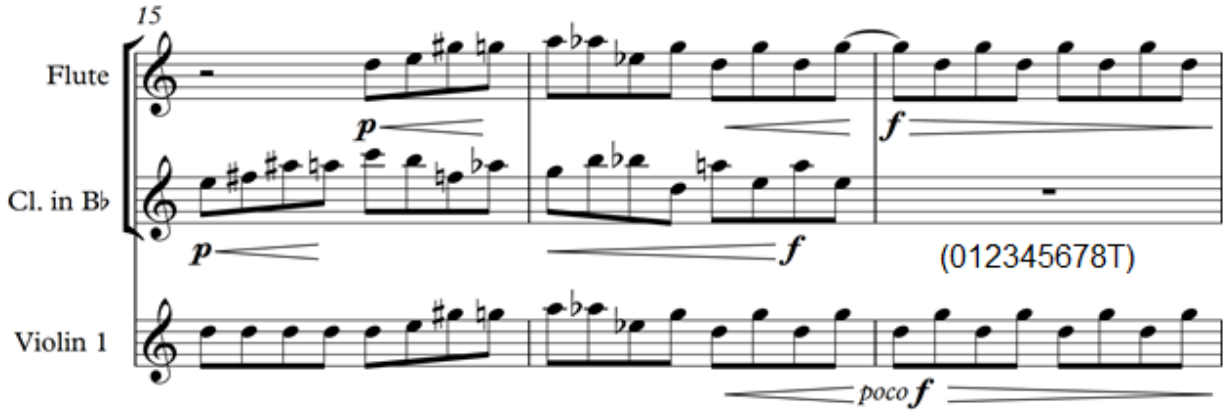


The passage shown in m. 9 represents the most basic version of the "flighty" motive, also occurring in mm. 2-3 and 6-7, and creates a wedge from the pitch A. This gesture is chromatically expanded in m. 10, though skipping the pitch F#. This creates the nearly fully chromatic set class (01234578), which will recur frequently within the movement.

From the beginning of the introduction the tonal center has been A, but beginning in m. 13 there is a shift to D as the tonal center within the string ostinato. This A-D motion seems to reference a dominant-tonic relationship, which again would be quite normal within the introduction of a sonata. Beginning in m. 15, the "flighty" motive returns in the 1st clarinet, 1st flute and violin parts, though in an imitative and chromatically expanded fashion (see Ex. 3.2).

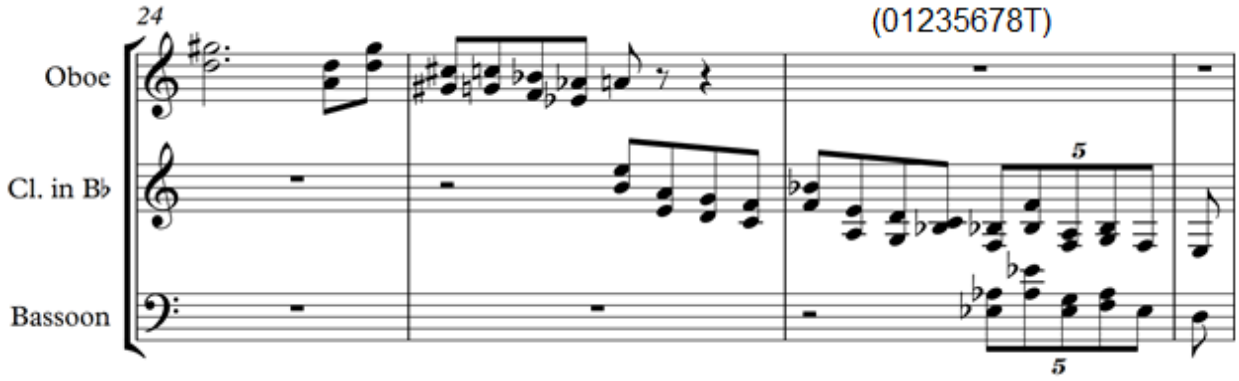
Together this makes the set class (012345678T), which is a chromatically expanded version of that found in mm. 9-10. This wedge gesture does not expand in both directions like the previous set, but instead primarily rises in a single direction (from D-A), with the descending half-step gesture seen in Ex. 3.1 (A-G# & Bb-A).

Example 3.2: *Movement 1, Introduction, expanded "flighty", fl., cl. & 1st vln., mm. 15-17*



The version of the "flighty" motive from mm. 15-17 returns in mm. 20-22, though transposed T_5 to begin on the pitch G. There is slight variation in the second and third measure, though the set class is a very similar (0123456789). The most striking variation involves the rising and falling 4^{th} from mm. 16-17, which becomes a tritone (D to G#). From mm. 22-24, a (016) (G#-A-D) harmony is sustained in the strings and double reeds, leading to a descending figure in the woodwinds to close out the introduction from mm. 24-27 (see Ex. 3.3). This figure forms the set (01235678T), which is a subset of the second iteration of the "flighty" motive from mm. 15-17. This chromatic figure moves primarily in parallel 4ths and 5ths and leads directly to the first theme of the exposition. The following reduction is not transposed to concert pitch.

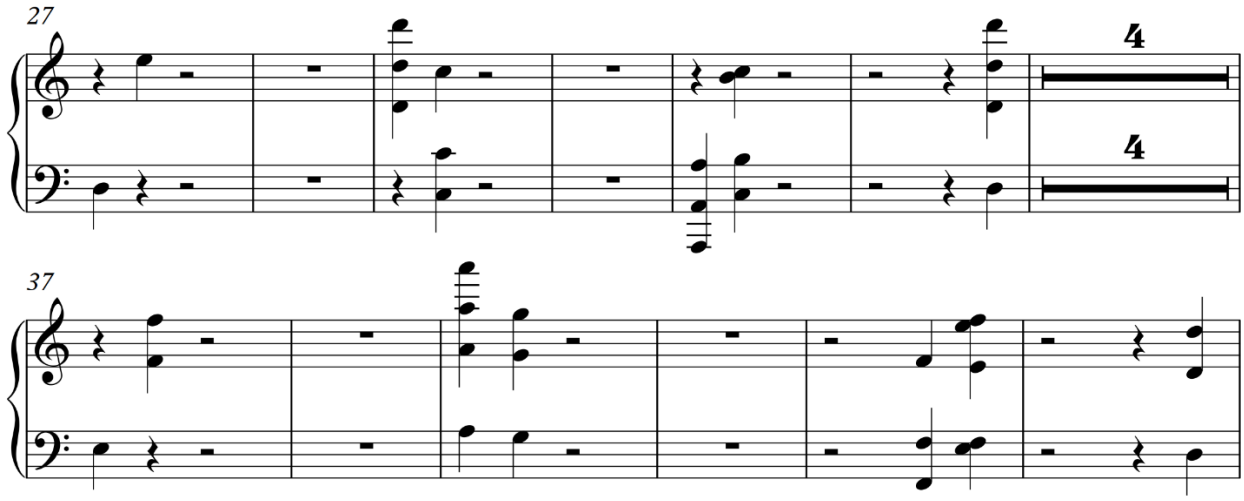
Example 3.3: *Movement 1, Introduction, woodwind figure, mm. 24-27*



II. EXPOSITION

The exposition begins in m. 27 with the entirety of the melody from Chorale No. 90 in the key of D minor, serving as the first theme from the first Theme Group (see Ex. 3.4). It is presented as a *klangfarbenmelodie* primarily between the brass, percussion, and pizzicato strings. The set for this theme is (0124579), which is a minor scale with the omission of the 6th scale degree, and the added leading tone.

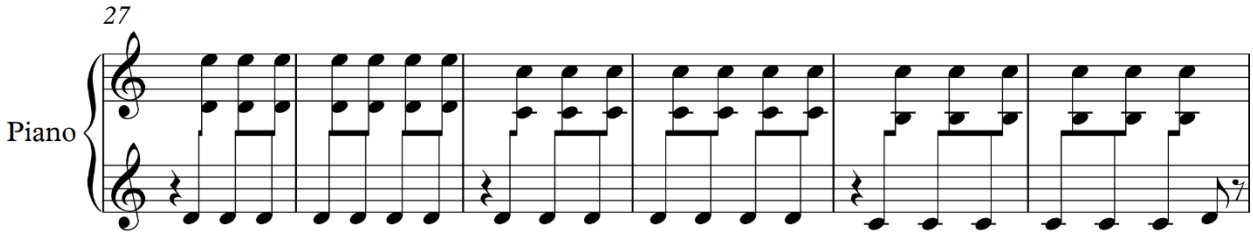
Example 3.4: *Movement 1, Exposition, Group 1 theme 1 reduction, mm. 27-42*



This first theme is accompanied each time by the 8th note ostinato, but in the piano instead of

the violins. The piano line does not remain static as the violin line does, but it changes with the melody line of theme 1 (see Ex. 3.5).

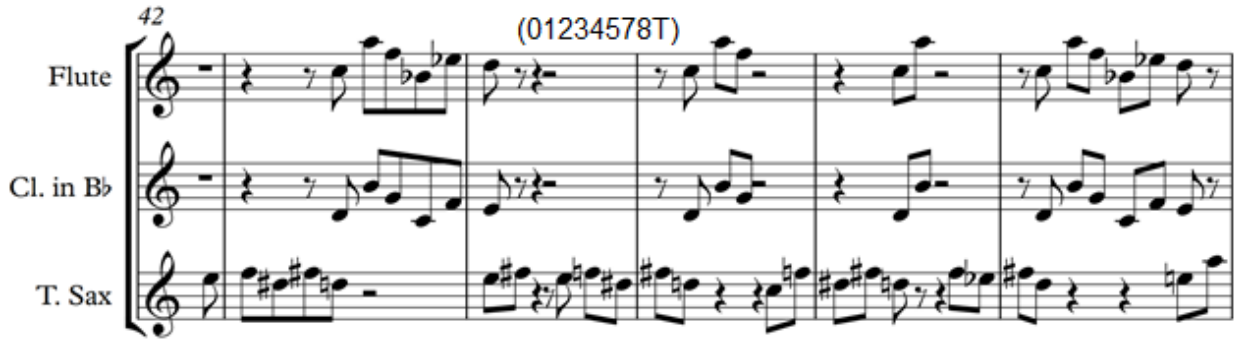
Example 3.5: *Movement 1, Exposition, piano accompaniment, mm. 27-32*



The first theme is interrupted on the last beat of m. 32 by material from the introduction, specifically the 8th note ostinato in the upper strings, and the "flighty" motive in the woodwinds. The "flighty" motive begins in the saxophone from mm. 32-34 with the wedge shape from the earliest examples of the "flighty" motive in mm. 2-3 and 6-7, though centered around the pitch D, as opposed to the pitch A. In mm. 35-36, the "flighty" motive moves to the clarinets and flutes, this time an exact T_5 transposition of the second iteration of the "flighty" motive in the 1st flutes from mm. 9-10, re-emphasizing the new pitch center of D.

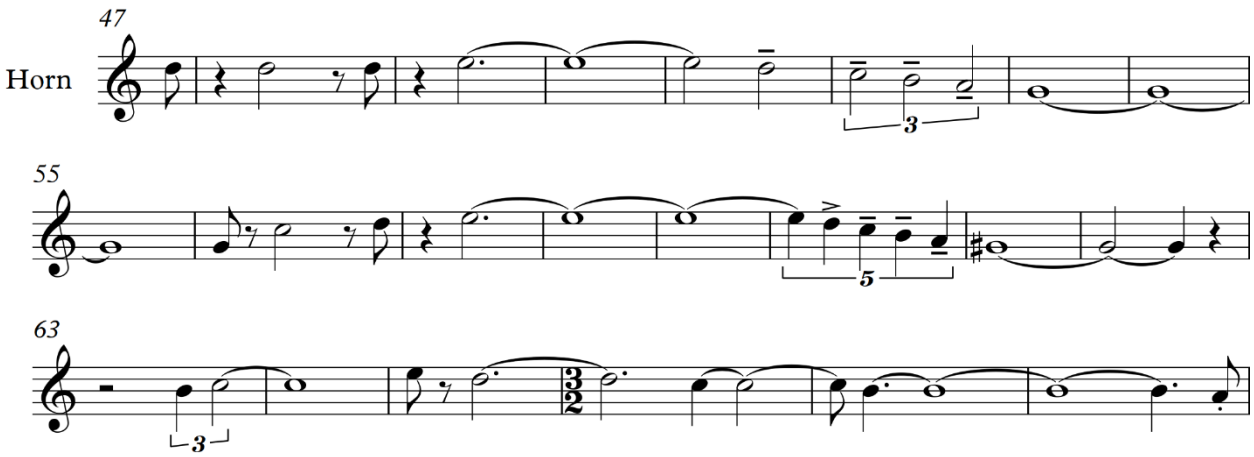
Theme 1 continues at m. 37, to be interrupted by the "flighty" motive once again from the last beat of m. 42 through m. 47 (01234578T) (see Ex. 3.6). This time the interruption occurs in the sax, clarinets and flutes, with an additional pitch (T) at a T_5 transposition from its initial occurrence, and the order of pitches slightly scrambled. This example also features dovetailing of the flighty motive between the flutes and clarinets and the tenor sax. The 8th note ostinato moves from the piano during theme 1, to the upper strings in this interruption, per usual.

Example 3.6: *Movement 1, Exposition, flutes, clarinets & tenor sax, mm. 42-47*



After this interruption from mm. 42-47, the first theme continues with a change in character. Instead of a rhythmic *klangfarbenmelodie* spread across the orchestra, the theme is now primarily presented by a solo horn in legato fashion, at times doubled by the harp and other instruments (see Ex. 3.7).

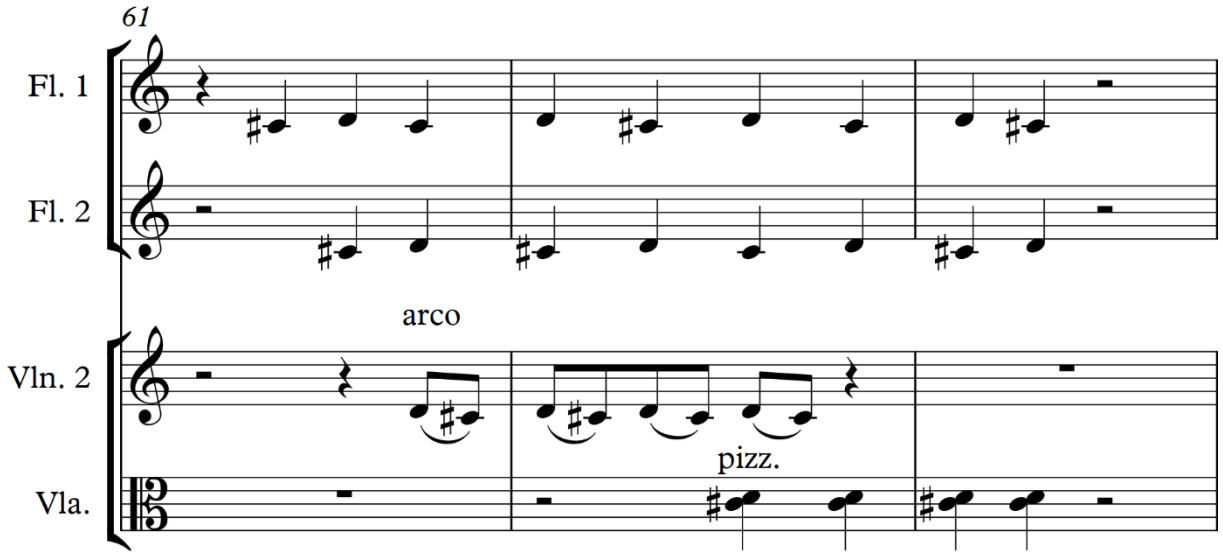
Example 3.7: *Movement 1, horn 1 reduction, mm. 47-68*



The pitch content of the accompaniment for this section remains within the set class for theme 1, which is (0124579), or the key of D minor with both the $b\hat{7}$ and the leading tone, while omitting the $\hat{6}$. The accompaniment primarily consists of the 8th note ostinato in the piano which has been altered to follow the melody, and other alternations of half and whole steps in the upper

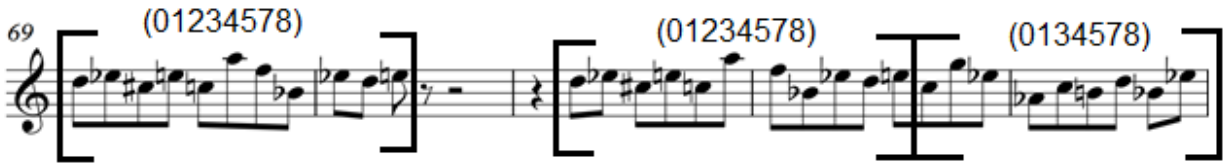
woodwinds and upper strings that follow the melody presented by the horn. These alternations are always either 8th notes or quarter notes oscillating between these two pitches. The two examples of this are the horn descents in mm. 51-53 and 60-61, which activate alternations between C-D and C#-D in the accompaniment. The following example is one such accompaniment pattern from mm. 61-63, during which a C# is held in the horn chorale melody (see Ex. 3.8).

Example 3.8: *Movement 1, flute, violin 2 & viola, mm. 61-63*



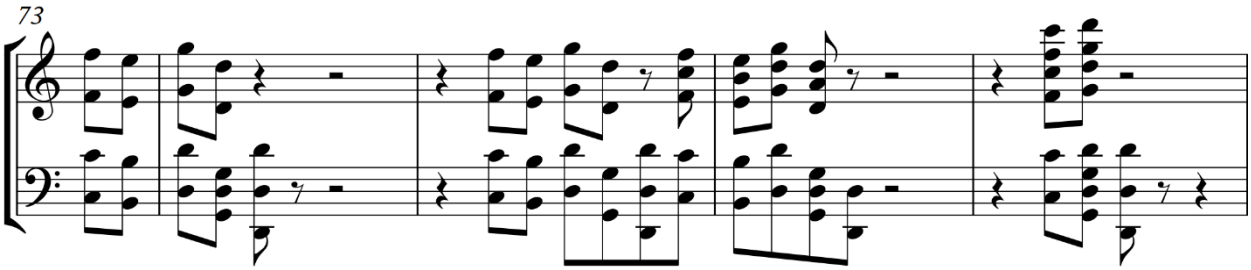
After the completion of theme 1 in m. 68, there is a re-iteration of the "flighty" motive, similar to those that interrupted the theme at mm. 32 and 42 (see Ex. 3.9). This is accompanied by the 8th note ostinato in both the strings and piano, and expands at the end of m. 72, leading to a transitional motive from the end of m. 73 through m. 77.

Example 3.9: *Movement 1, woodwind reduction, mm. 69-73*



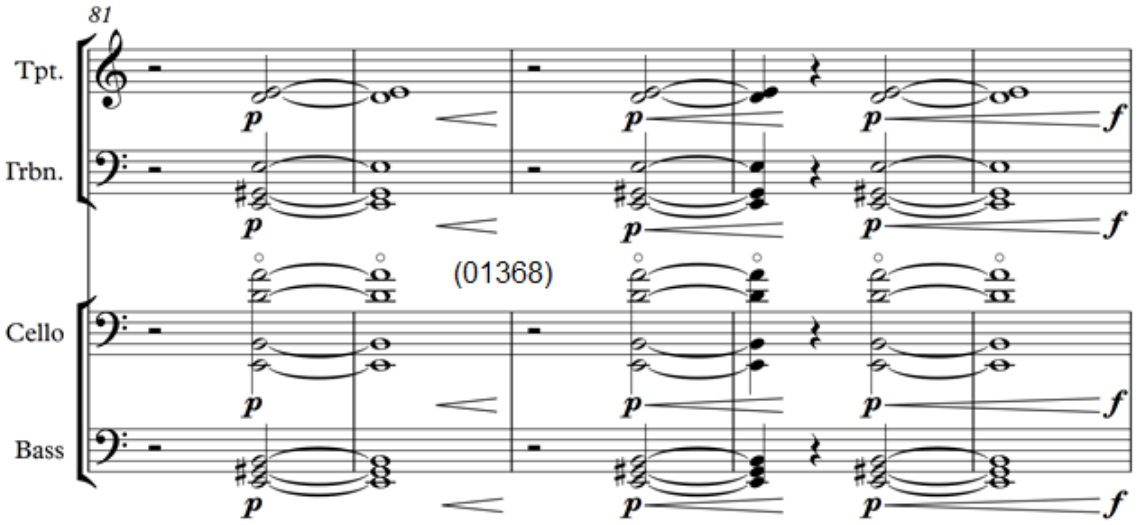
The statements in mm. 69-70 and 71-72 are exactly the same as those from mm. 42-44. At the end of m. 72, the pattern changes, and a smaller pitch class set is introduced for a moment, creating the set class (0134578), which is a T_{10} transposition of the previous two, with the omission of "2". This smaller pc set prepares a cadential sequence heard at the end of the passage from mm. 73-77, which has the pc set (013568) (see Ex. 3.10).

Example 3.10: *Movement 1, Exposition, cadential sequence, orchestral reduction, mm. 73-77*



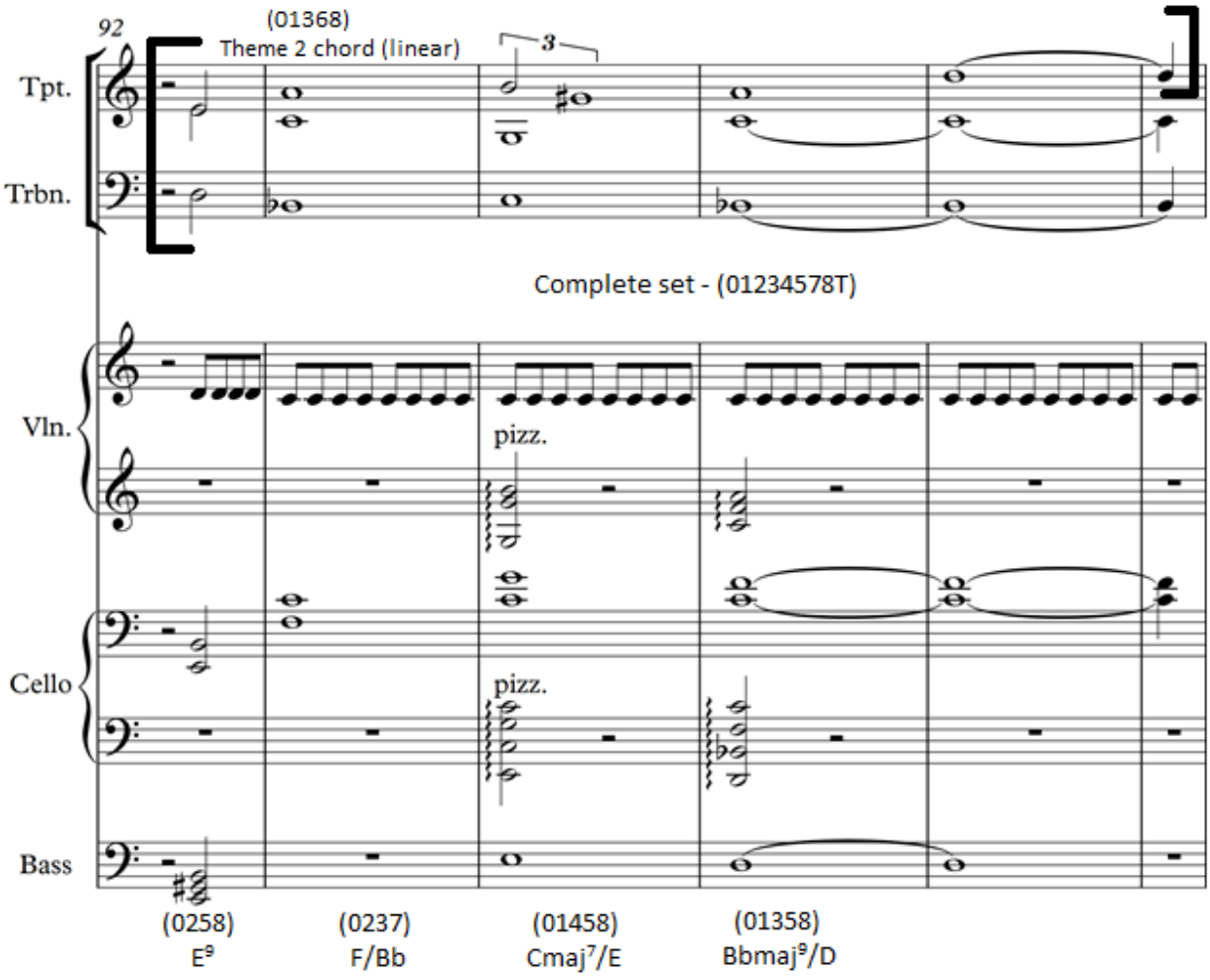
This transition cadential sequence leads to the beginning of theme 2 of the first Theme Group in m. 81 (see Ex. 3.11). Theme 2 consists of two main elements. The first is an E^{11} chord in the lower strings and brass section, which makes the pitch class set (01368). This is a subset of the set just encountered in the cadential sequence that ended the first theme.

Example 3.11: *Movement 1, Group 1 theme 2 E^{11} chord, bass, cello, trbn. & tpt., mm. 81-85*



This chord dominates the first half of the second theme from mm. 81-100, with two brief interruptions. The first interruption occurs from mm. 86-87, and introduces the pitches A, Bb, and C in the trumpet, trombone and 2nd cello, to create the set (013). The second interruption is slightly more elaborated and occurs within the passage from mm. 92-97 (see Ex. 3.12).

Example 3.12: *Movement 1, Exposition, orchestral reduction, mm. 92-97*

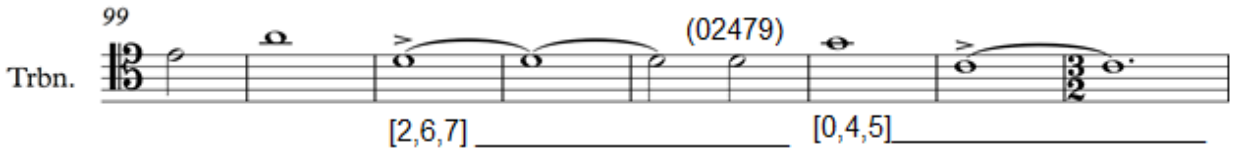


This interruption contains the 2nd theme chord spelled out as a melody in the 1st trumpet and English horn, which creates a sense of continuity though its original voicing drops out in m. 93. The chords from mm. 93-95 are very closely related by voice-leading, which is clear from the 2nd cello part in mm. 94-95. These same voicings are present in m. 93 with the exception of the pitch

D, though in the brass instead of the strings. The bass movement in mm. 94-95 is very distinct, which makes the C major and Bb major seem like dominant and predominant mediant substitutes for E major and D major, respectively. These harmonies combined with the linear 2nd theme chord form the set (01234578T) [4, 5, 7, 8, 9, 10, 11, 0, 2], which is a very closely related superset of the "flighty" motive from mm. 9-10 [4, 5, 7, 8, 9, 10, 11, 0]. This return to the original transposition leads the listener to believe that the tonality of this section would be the original tonality of A, which is further solidified by the diatonic trumpet melody of mm. 92-95. This expectation is never fully realized, though the pitch content and the opening leap from E-A followed by the G#-A resolution certainly seems to suggest A as the tonal center.

The opening chord (E^{11}) from theme 2 is re-established in m. 97, but by the end of m. 99 the second element of theme 2 has begun - a pentatonic melody performed by the solo trombone comprised of rising 4ths and falling 5ths (02479) (see Ex. 3.13). Notably, when combined with the pitches from the 2nd theme (E^{11}) chord, this together forms the set class (0124579). This is the same as the set class formed by the chorale melody (theme 1), but is transposed up a perfect 5th, representing an A minor scale with the $b\hat{6}$ omitted, and the leading tone added.

Example 3.13: *Movement 1, Exposition, pentatonic trombone solo, mm. 99-106*

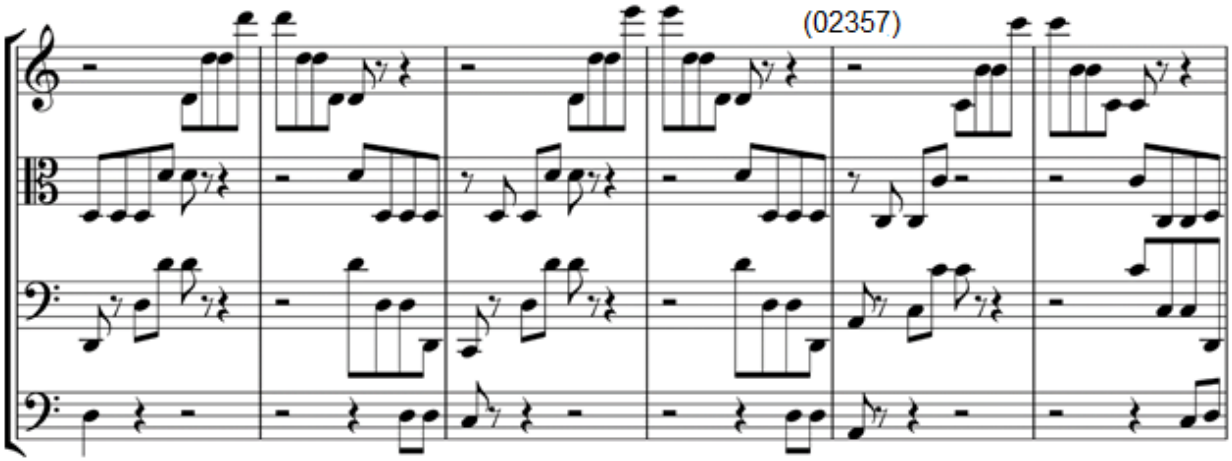


This pentatonic trombone solo is accompanied by various transpositions of a (015) set, as heard in mm. 99-106 ([2,6,7] and [0,4,5]), and three more times through the course of mm. 108-110 ([7,11,0], [9,1,2], [11,3,4]). A transition follows (mm. 111-116) that leads to the return of theme

1. Within this transition passage, the "flighty" motive returns transposed (T_7) in relation to its appearance in mm. 9-10. A modified version of the descending woodwind passage from mm. 24-27 returns in mm. 115-116, this time forming the set class (0123578T), a subset of the first figure, and again leading to theme 1.

An unusual feature of this movement is that the first Theme Group contains a small ternary form (ABA'). This repetition of the first theme (A') is nearly the same as its first presentation, but with some minor modifications in voicing and dynamics. The *klangfarbenmelodie* section (mm. 27-42) is now presented forcefully in the brass, giving this repeat a much more aggressive character. Instead of the static 8th note ostinato, the new accompaniment pattern is a sweeping 8th note gesture in the strings (see Ex. 3.14). This string accompaniment pattern creates the set (02357), spelling out the first five pitches of the A minor scale, though being primarily focused on the tonal center of the first theme, D.

Example 3.14: *Movement 1, Exposition, string accompaniment reduction, mm. 117-122*

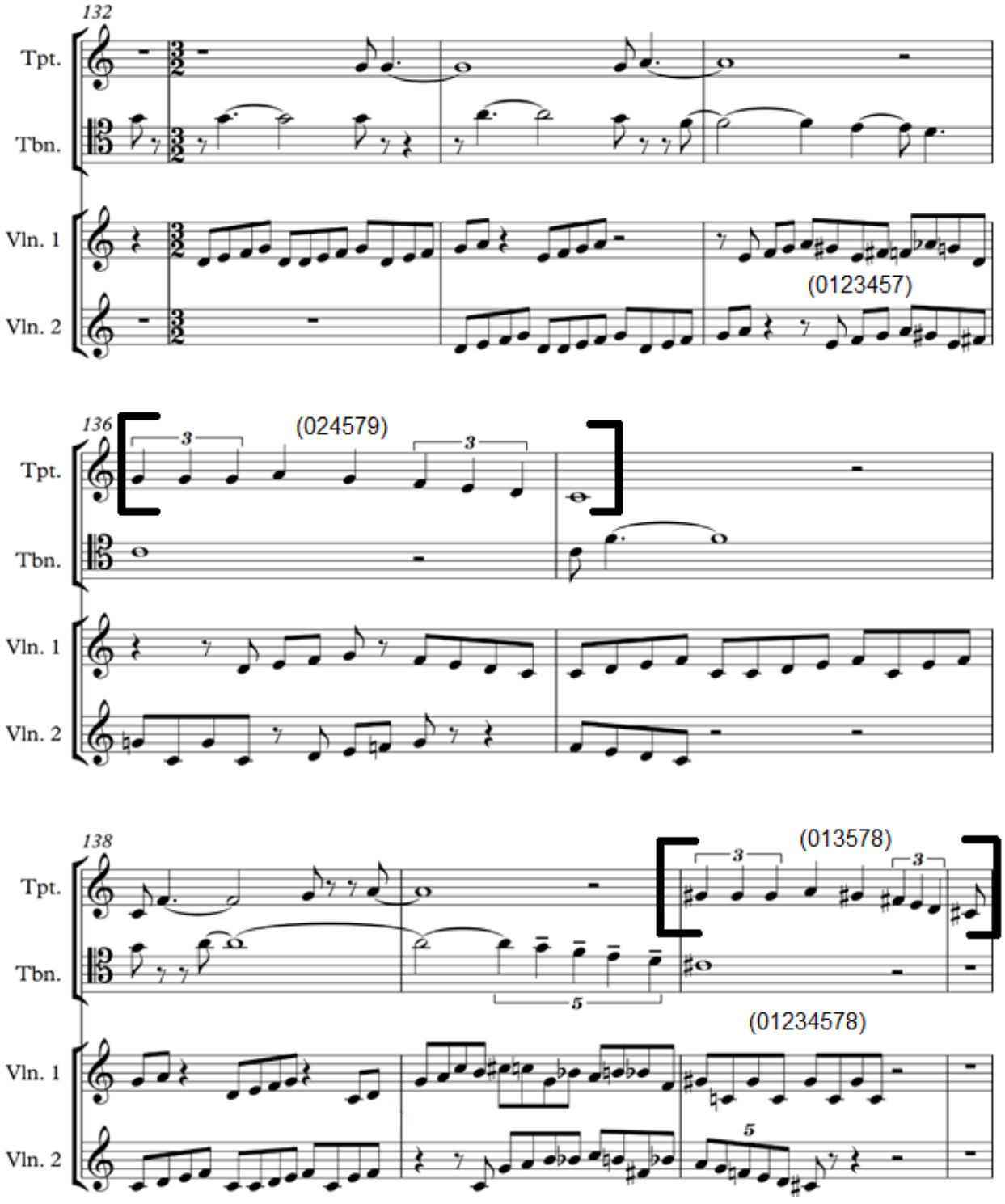


There are two interruptions in the first half of the first theme, as in the first section, however this time each interruption is abbreviated to two measures. The first interruption occurs

from mm. 123-124, and is equivalent to mm. 35-36. During this time, the 8th note ostinato returns, but in the horns, again accenting the aggressive character of the repeat. Both theme 1 and the above string accompaniment motive return from mm. 125-130, though the string motive's set contracts to (01235) as the harmonic tension increases. From mm. 131-132 the interruption from mm. 42-47 returns, though again contracted to be equivalent to mm. 46-47.

This leads to the second half of the 1st theme from mm. 132-146, primarily in the trombone, as opposed to the horn from mm. 47-68. It is truncated compared to its first occurrence and contains a new accompaniment theme and imitation in the trumpet (see Ex. 3.15). This accompaniment theme primarily consists of scalar passages of ascending 4ths and 5ths in the strings.

Example 3.15: *Movement 1, Exposition, trumpet, trombone, violin 1 & 2, mm. 132-141*

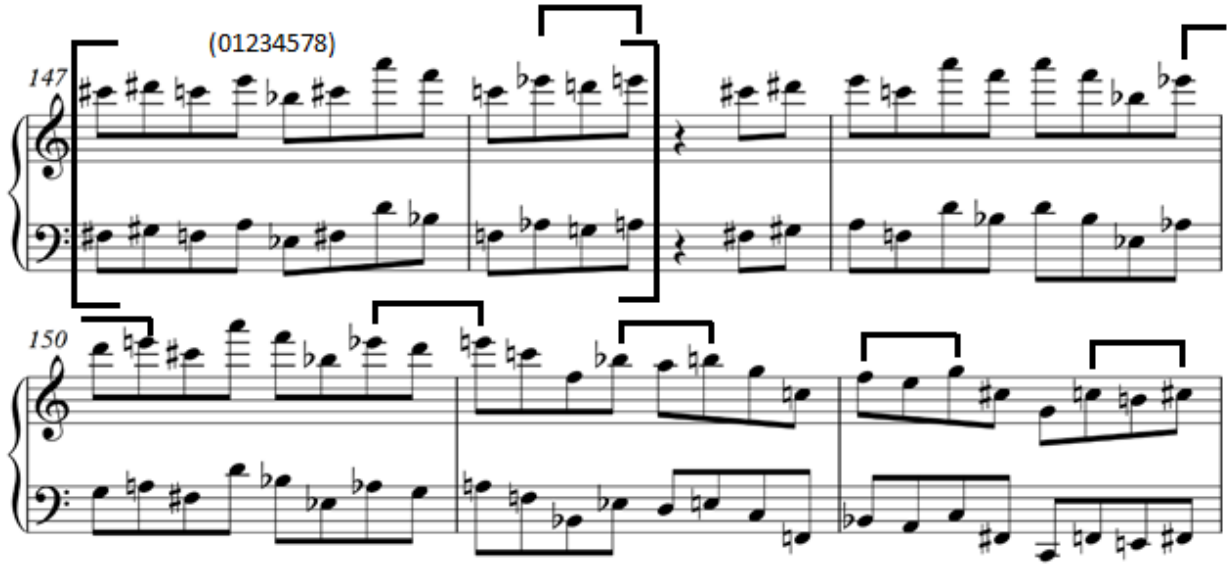


The same pitch collection (02357) heard as the accompaniment pattern in the strings (mm. 117-122) returns as the accompaniment theme from mm. 133-134. In m. 135 this set is chromatically

expanded to (0123457) and becomes the new set (023579) from mm. 136-138. Chromatic expansion again appears in mm. 139-140, to form a nearly fully chromatic set. Notice the similarities between mm. 134-136 and mm. 138-140, which are seemingly "activated" by the difference of C and C# as the destination of the two descents in the trombone. Each chromatic interruption (m. 135 and m. 139) occurs in conjunction with the trombone descent. From mm. 141-146 the sweeping string motive returns to conclude the theme, this time with the chromatic set (01234568), heightening the tension as the theme draws to a close.

From mm. 147-163 there is a transition, which leads to the beginning of the 2nd Theme Group in m. 164. A fully orchestrated arrangement of the "flighty" motive doubled at the 5th (previously heard in mm. 9-10) is transposed to circle around the pitch D in the upper voices, and G in the lower voices beginning in mm. 147-148 (see Ex. 3.16).

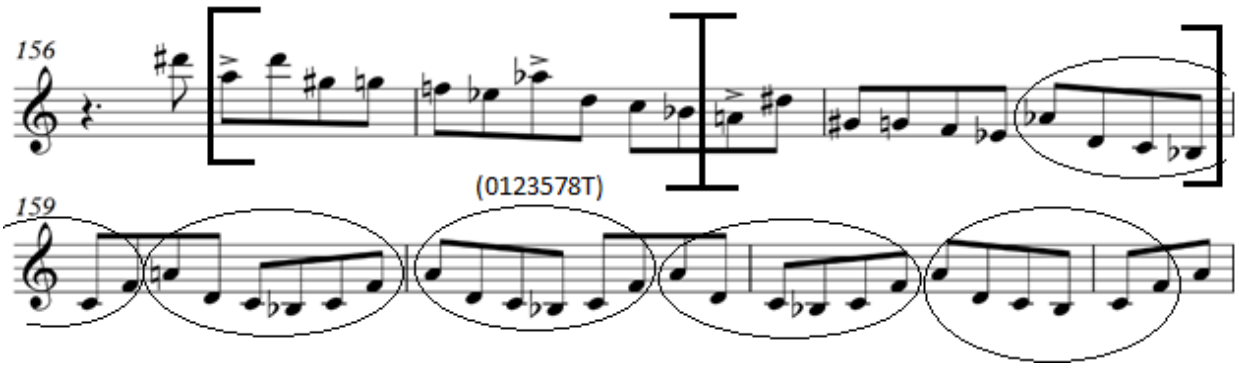
Example 3.16: *Movement 1, Exposition, piano reduction, mm. 147-152*



These pitches are subjected to a sort of random displacement within the same set from mm. 148-150, and beginning on the last 8th note of m. 149 there is a three-note sequence moving down in

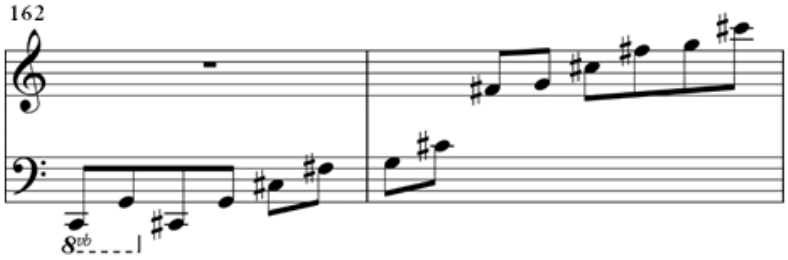
register (see bracketed portions of Ex. 3.16). This three-note set is appropriated from the last three pitches of the "flighty" motive, particularly from m. 148. This sequence recurs at a regular interval of two eighth notes in between each set beginning in m. 150, and the first note of each set moves down in a sequence of 4ths. At m. 153, this sequence is interrupted by a fixation on the set [0,1,6,7] in the bassoons and horns, which is taken from the 5th and 8th eighth notes of the two 5th-related sets in m. 152. This four-pitch figure from m. 152 is retained in the strings from mm. 154-156. The next idea begins in the saxophone and bassoon where the previous idea finished, continuing from G4, and again descending sequentially, before getting "stuck" on the six-note motive from mm. 158-160 (see Ex. 3.17).

Example 3.17: *Movement 1, Exposition, transition, tenor sax, mm. 156-162*



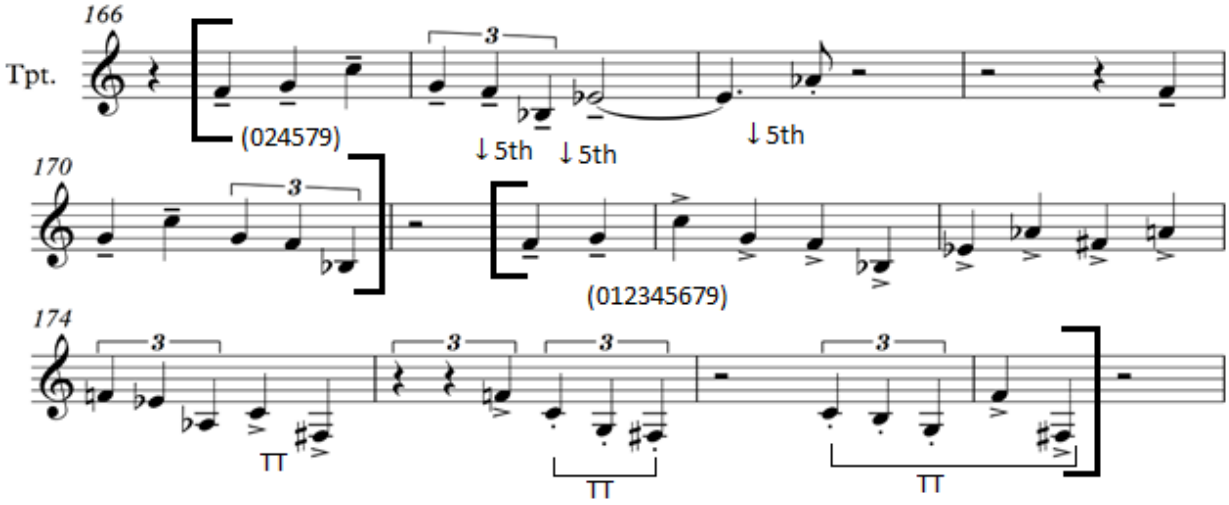
This leads to a final closing figure before the second Theme Group in mm. 162-163, which is an ascending [0,1,6,7] set (see Ex. 3.18). This set is the same which played an emphasized role from mm. 153-155, and seems to represent a break with the simple tonality of the first Theme Group.

Example 3.18: *Movement 1, Exposition, transition, orchestral reduction, mm. 162-163*



The second Theme Group begins almost immediately after a dramatic (0167) rising figure in mm. 162-163, with a sforzando piano entry on a sparse (013) [11,0,2] set at m. 164. This harmony remains constant until m. 176, at which point the harmony becomes even more sparse. The (013) set has only played a particular role in mm. 87-88, as a brief interruption in the second theme in the first Theme Group. The first theme of the second Theme Group begins in the A trumpet at m 166 (see Ex. 3.19).

Example 3.19: *Movement 1, Exposition, Group 2 theme 1, A tpt. (concert pitch), mm. 166-177*

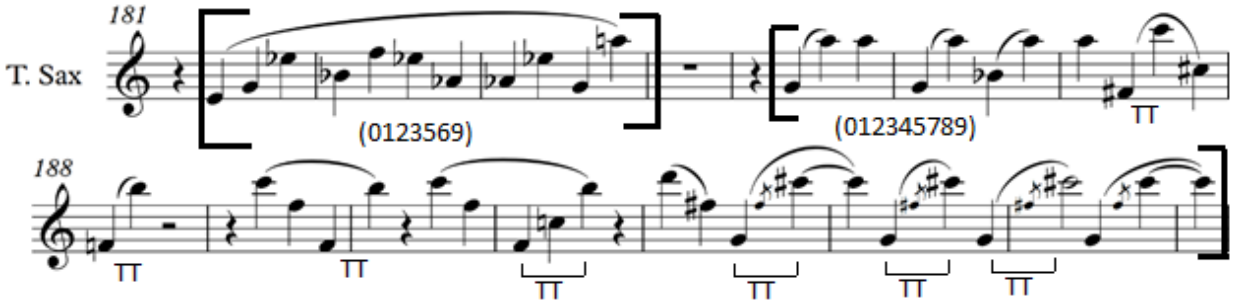


The first two phrases of this theme (mm. 166-170) form the set class (024579), which forms an F minor or F Dorian scale without the $\hat{6}$. This set class is a subset of theme 1 from the first Theme Group, and it is a transposed version (T_3) of the previous first theme (0124579), missing only the

C#. The first seven bars of this theme remain related to the chorale motive from theme 1, but at m. 173 there is a chromatic expansion that takes place, leading the pitches F, Bb and Ab to become interspersed with the pitches F#, B and A. This leads to the much more chromatic set for the last half of the theme (012345679), which is a subset of some of the more chromatic "flighty" motive sets. Therefore, the first half of this theme begins in a way which much more closely resembles the chorale theme, and gradually becomes chromatically expanded until it is nearly unrecognizable. While the interval of the descending 5th/ascending 4th is emphasized in mm. 166-172 (as in theme two from the first Theme Group), a change in emphasis on the interval of the tritone occurs within mm. 174-177.

Beginning in m. 177 the accompaniment is reduced from a (013) set to only a B held in the contrabass and occasionally in the cello. The tenor sax presents theme two from the second Theme Group beginning in m. 181 (see Ex. 3.20).

Example 3.20: *Movement 1, Exposition, Group 2 theme 2, tenor sax, mm. 181-195*

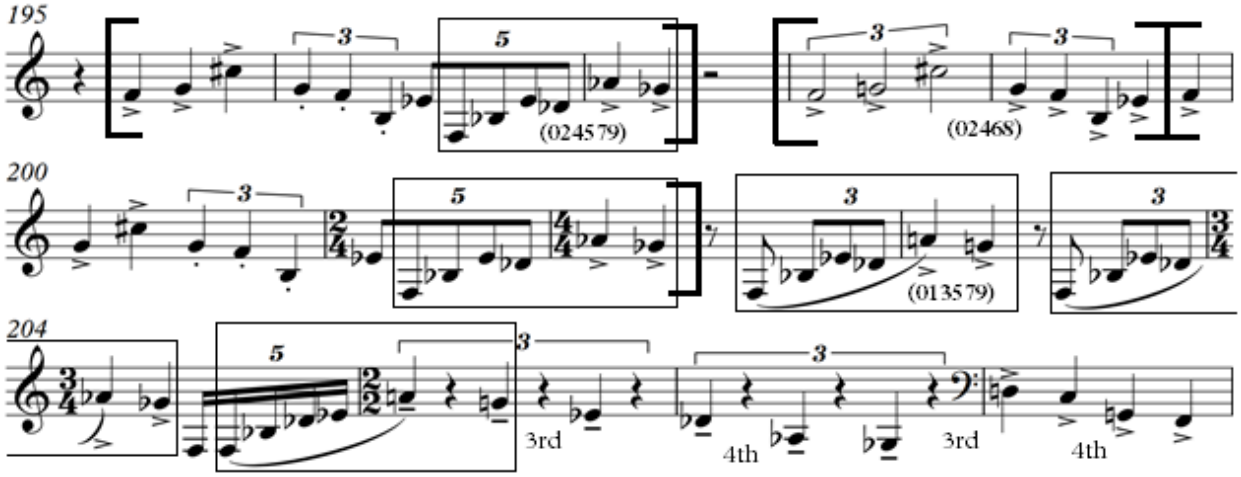


At the beginning of Theme Group 2 theme 2 (mm. 181-183), the pitch material forms set class (01235679), a transposed subset (T_8) of the more chromatic section of the trumpet solo from theme 1 (mm. 171-177). This section (mm. 181-183) still primarily emphasizes Perfect 4ths and 5ths, with some emphasis upon the major 7th and major 9th in m. 181 and m. 183. The next section

(mm. 185-195) expands chromatically and registrally, spending much more time emphasizing the major 7th, while expanding the Perfect 4ths to tritones. As seen in Ex. 3.20, many of these emphasized tritones occur as compound intervals, further heightening any sense of tension. The accompaniment in the lower strings beginning in m. 188 switches from stasis on the pitch B to D. At m. 192, this static pitch moves to F, which seems to be triggered by the final pitch of the aggregate (C) from saxophone solo occurring in m. 192. In m. 194, this becomes the set class (016) (also in the sax beginning in m. 192), which has played a role in both the introduction and the transition into the second Theme Troup.

The closing theme sounds from mm. 195-207, at which point there is a grand pause, and the development section begins. The closing theme is derived from the first theme from Group 2, chromatically expanded to include tritones where there were once perfect 4ths (see Ex. 3.21).

Example 3.21: *Movement 1, Exposition, closing theme reduction (concert pitch), mm. 195-207*



The two primary examples of this are the C# in m. 195 and the B in m. 196, which were C and Bb in Group 2 theme 1. Aside from this, the sections boxed in Ex. 3.21 become the primary interest of the composer for the remaining measures. These boxed sections can be re-interpreted as a

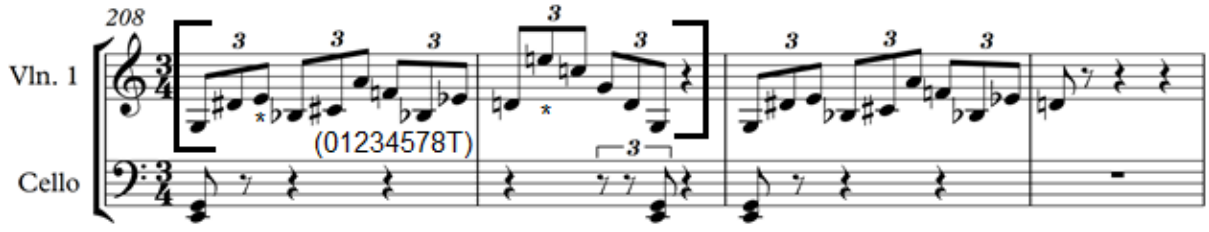
series of ascending 4ths (F-Bb-Eb-Ab-Db-Gb) if the Db is moved to follow the Ab. They also create the same set class as Group 2 theme 1 from mm. 166-170 (see Ex. 3.19).

In mm. 202 and 205 this pattern is disrupted by the presence of A and G instead of Ab and Gb, which add two tritones to the collection (F-Bb-Eb-A-Db-G). These two collections alternate until mm. 205, at which point a descending sequence derived from the aforementioned falling 2nd pattern brings the exposition to a close with a grand pause. Throughout this section (mm. 195-204), this closing theme is accompanied by the set (013) [4,5,7], which has played an important role at various points in the exposition. Interestingly, Group 2 could be interpreted as its own small ternary form, just as Group 1. If this were the case, theme 1 would be A, theme 2 would be B, and the closing theme (derived from theme 1) would be A'.

III. DEVELOPMENT

The development begins with a triplet string motive in the 1st violins that creates the pitch class set (01234578T). This set is a T_5 transposition of the pitch class set of the "flighty" motive from mm. 9-10 (with the T added) and a nearly exact transposition of m. 10 from the starred pitches in mm. 208-209 (see Ex. 3.22 & 3.1, pg. 24).

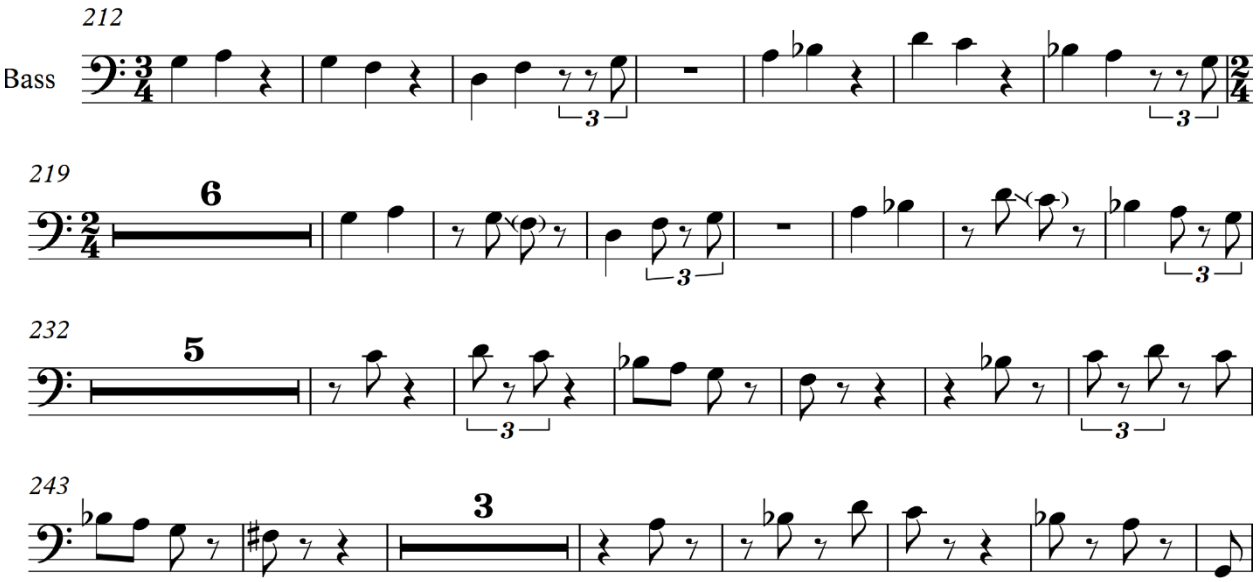
Example 3.22: *Movement 1, Development string motive, vln. 1 & cello, mm. 208-211*



The cello consistently repeats the root and 3rd of an Em (see Ex. 3.22), often doubled by the lower brass and emphasized by the percussion. This makes the tonality of this section somewhat

uncertain, as the 1st violin and the chorale (see Ex. 3.23) clearly emphasize G as the tonal center. This tonal ambiguity could be understood as an attempt by the composer to highlight the modal ambiguity of the chorale and Bach's harmonization itself, which seems to be somewhere in-between G Minor and G Dorian, though the key signature seems to indicate the latter.

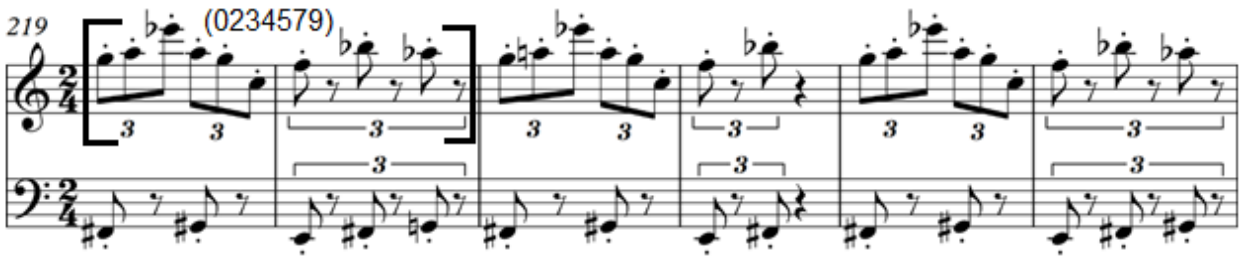
Example 3.23: *Movement 1, Development chorale, contrabass reduction, mm. 212-252*



The chorale melody (Group 1 theme 1) is clearly given in the contrabass over the course of mm. 212-252 (see Ex. 3.23), in G Minor/Dorian, the original key of the Bach harmonization. Interestingly, rhythmic contraction of the chorale tune seems to occur each time a cadential point in the chorale is reached (see mm. 214, 218, 227, 231, 239-40 & 243-44). The only consistent accompaniment pattern is the string motive (see Ex. 3.22) which is derived from the "flighty" motive and remains consistently within its pitch class set until m. 237. Within this first section of the development (mm. 212-256), these are the only two primary ideas, with the exception of interruptions in mm. 219-224, 232-236 and 244-247. These interruptions introduce an element of rhythmic complexity that has not been present so far in the movement, and they primarily

develop the closing theme from the end of the exposition (see Ex. 3.24). The theme is transposed T_2 and retains the tritone interval between the 2nd and 3rd pitches from the closing theme, but retains the perfect 5th interval between the 5th and 6th pitches from the 1st theme from the 2nd Group. The second measure of each example (mm. 220 & 224) is truncated from the closing theme, but retains the focus on the falling major 2nd (see Ex. 3.24).

Example 3.24: *Movement 1, Development interruption (reduction), mm. 219-224*

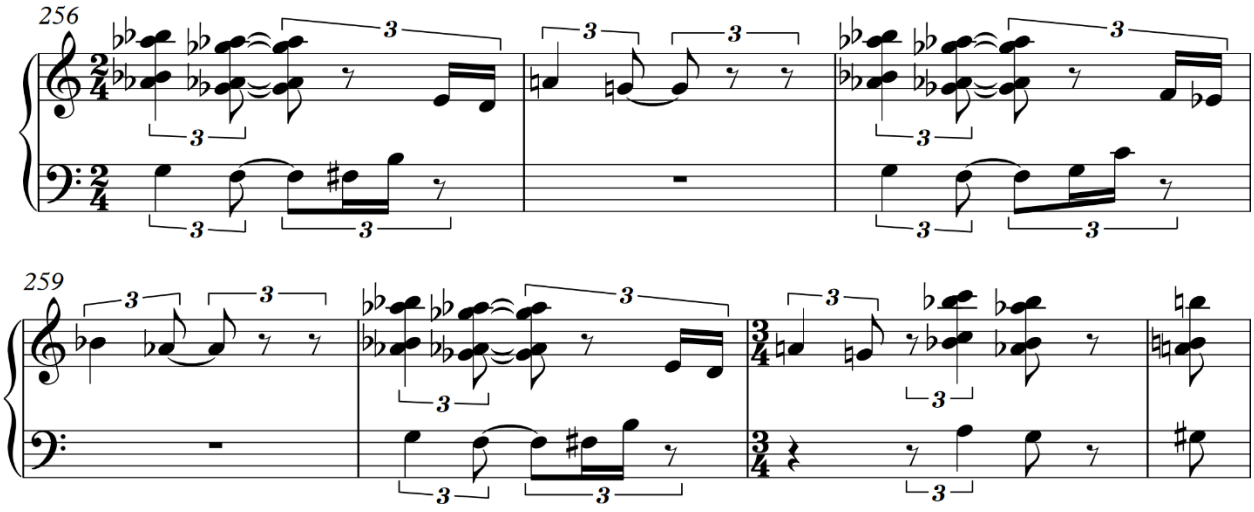


The development continues in this way until the development string motive is transposed T_3 beginning in m. 237. This lasts from mm. 237-244, as the chorale begins to shift to the relative major momentarily, which seems to bear significance. Beginning in m. 244, the interruption motive has become rhythmically and harmonically fragmented, and by m. 252 it has concluded with the chorale theme. From mm. 252-255 a subset of the development string motive is taken through a sequence where it is transposed T_7 three different times, before leading to the beginning of the second section of the development in m. 256.

The second section within the development turns its focus primarily upon the closing theme, and specifically the falling 2nd motive within that theme. The following example presents a development of the closing theme, specifically the boxed portions from example 3.21 (pg. 40). Just as in example 3.21, the second portion of this second half of this motive (2nd half of mm. 256-257, 2nd half of mm. 258-259, etc.) varies by half step, except the entire motive is transposed

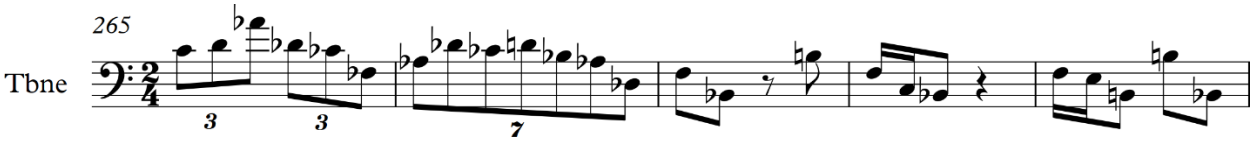
instead of only the falling 2nd portion. Notice that each vertical alignment of the falling 2nd motive does not only contain a single pitch as in the closing theme but creates a (013) set class. Notably, each transposition of the varying falling 2nd motive (mm. 257 & 259) when combined with the two varying pitches from the closing theme (197 & 203) also combine to form the set class (013).

Example 3.25: *Movement 1, Development reduction, mm. 256-262*



This comes to a conclusion in m. 262, when a sudden T_1 transposition sends the strings into a descending sequential pattern from mm. 262-264. From mm. 265-269 a solo trombone develops the end of Group 2 theme 1 (mm. 171-177). The trombone begins on the pitch C, which would suggest a T_7 transposition from the exposition, but by the 2nd measure has shifted to center around the pitch Bb, which makes a T_5 transposition (see Ex. 3.26).

Example 3.26: *Movement 1, Development, trombone, mm. 265-269*

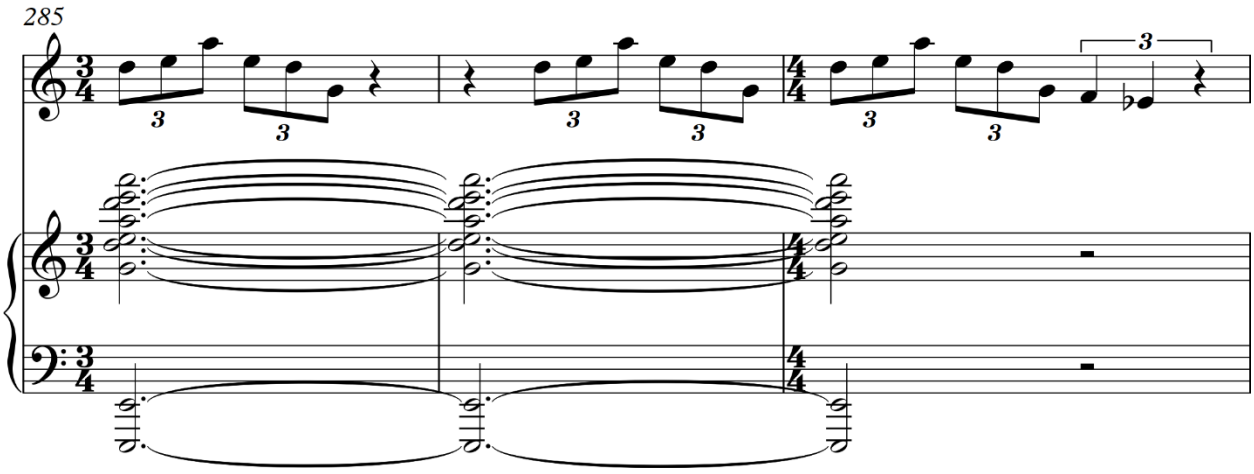


Aside from this transposition, the major difference between the two is that each time there is a B or a Bb from mm. 267-269, it was the reverse in the exposition. This leads the root (Bb) to

remain emphasized, as opposed to emphasizing the B, therefore this staying more closely centered to its tonality.

From mm. 270-272, a static (027) set class is held with little melodic activity, before a chromatic sequence in the strings from mm. 273-275. This leads to another short statement of the falling 2nd motive at m. 276 (B-A), which occurs simultaneously with another statement of the Group 2 theme 1 motive (mm. 276-279), which has again been chromatically altered to change from the pitch centers A-Ab, leading to a T_3 transposition of the exposition. This all occurs while a (016) harmony is held from mm. 276-279, which is transformed to become T_{10} of the previous (027) harmony beginning in m. 280. Consequently, when the chromatic sequence in the strings from mm. 273-275 returns in m. 282, it is also at a T_{10} relationship to its first appearance. This leads directly to another statement of the Group 2 theme 1 motive, with its correct pitch class content at T9 in mm. 285-294 (see Ex. 3.27).

Example 3.27: *Movement 1, Development reduction, mm. 285-287*



The melody and harmonic content create the pitch class set (0257), with the exception of the F-Eb in m. 287. This harmony and melody recurs until a final sequence of the falling 2nd motive from

mm. 292-293 (F-Eb-Ab-G-C-Bb), which is (024579), or the set from the first half of the Group 2 theme 1 motive (see Ex. 3.18). From mm. 295-297 there is a focus on the pitch class set (0167) [2,3,8,9], which emphasizes two tritones (D-Ab & Eb-A), and it also emphasizes an ambiguity between the tonal centers of A and D. From m. 298-300 a descending 2nd sequence occurs (A-G#-F-Eb-Bb-Ab-E-D-A-G), leading to a subtonic-tonic resolution back into the tonal center of A.

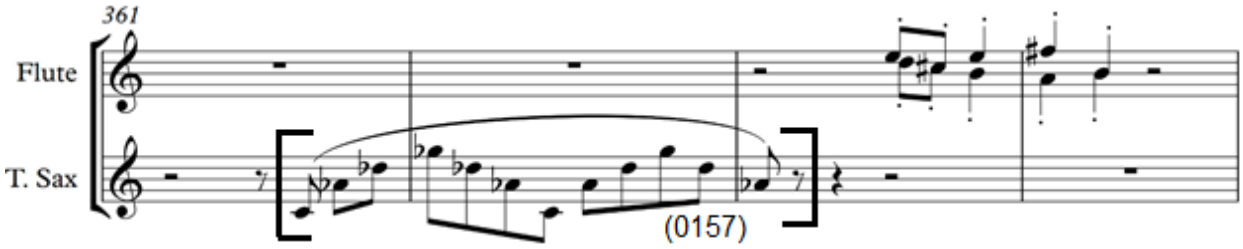
IV. RECAPITULATION

The recapitulation begins in m. 301 with the restatement of Group 1 theme 1, with the tonal center of the introduction (A) returned. In the recapitulation, the 8th note motive has been transformed to a quarter-note triplet, likely due to the heavy emphasis upon triplets in the development section. The *klangfarbenmelodie* section of theme 1 (mm. 301-314) is immediately repeated from mm. 317-331, as Bach's chorale harmonization calls for. Abbreviated versions of the "flighty" motive occur from mm. 306-307, 314-317 & 324. The accompaniment pattern is dominated by the 8th note accompaniment pattern (now in quarter-note triplets) as before. The second half of the theme begins in the trombones in m. 332, and proceeds as in mm. 132-146, with the ascending scalar accompaniment pattern in the strings and imitation in the trumpets.

There is a brief transition between the first and second themes (Group 1) from mm. 347-355 that is an exact T_7 transposition of mm. 69-77. This transition includes the cadential sequence from mm. 73-77. At m. 359 the second theme begins, though not at the transposition that would be expected. The first theme was transposed up a Perfect 5th, so it would be expected that the second theme would also be transposed T_7, but it is actually transposed T_2, to create an $F\#^{11}$ chord, with the 5th omitted the majority of the time. There is no diatonic melody this time,

however, there is a recurring saxophone figure (mm. 361-363 & 367-370) that carries the pitches of the harmony, as the diatonic melody line had before (see Ex. 3.28). The other figure that will recur throughout this section is seen primarily in the flutes, and fills in the missing C# from the F#^{11} chord. This 2nd flute contains some pitches not within the F#^{11} collection, but the primary pitches seen in the 1st flute are chord tones (E-C#-E-F#-B).

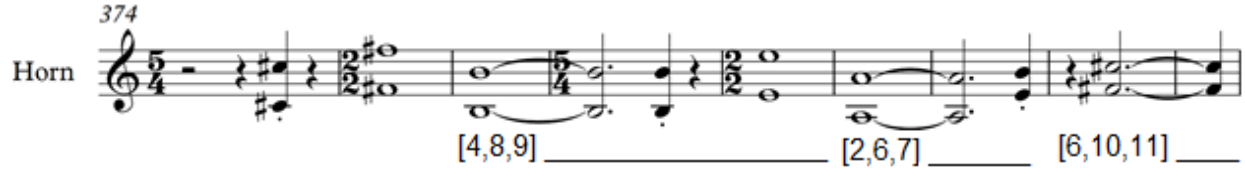
Example 3.28: *Movement 1, Recapitulation, flute & sax, mm. 361-364*



There are brief interruptions in the F#^{11} harmony as in the exposition, namely the [0,2,4] set in mm. 364-365 and 371-372.

The pentatonic theme previously seen in the exposition (see Ex. 3.12) begins in m. 374, also transposed T_2 to become a D major pentatonic scale. It is also accompanied by three transpositions of a (015) set class, [4,8,9], [2,6,7] and [6,10,11] (see Ex. 3.29).

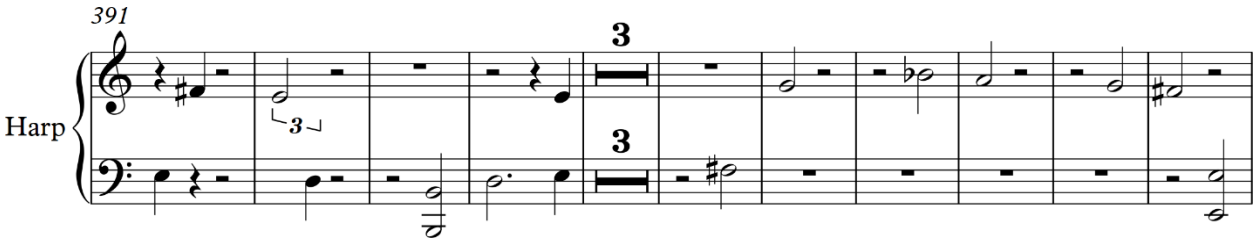
Example 3.29: *Movement 1, Recapitulation, horn, mm. 374-342*



From mm. 385-389, there is a scrambled T_9 transposition of the flighty motive from the introduction, to center around the pitch F#. Every other instrument in the orchestra holds and F# for these bars, leading to the expected return of A' in m. 391, but this time transposed to the key

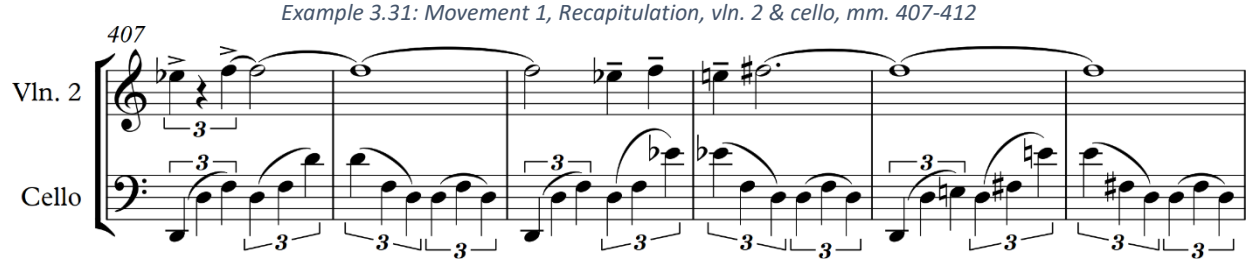
of E. The theme is given primarily in the harp and timpani, accompanied by the 8th note motive in the strings, which follows the melody (see Ex. 3.30). An interesting alteration is made to the melody in m. 400, changing the B to Bb, which triggers a series of 4th related harmonies in the accompaniment in mm. 399-400 (F-Bb-Eb-Ab).

Example 3.30: *Movement 1, Recapitulation, harp, mm. 391-403*



In mm. 405-419, the first phrase once again begins a repeat, but suddenly changes tonal centers to center around D. This second statement is accompanied by a sweeping quarter-note triplet gesture and long sustained pitches both throughout the entire orchestra, that largely accentuate a series of rising 2nds. These rising 2nds occur in the upper strings, and rise by major 2nd chromatically from D to A, and the sweeping string triplet figure follows suit, gradually introducing each chromatic pitch. The following example only shows a part of these accompaniment ideas (see Ex. 3.31).

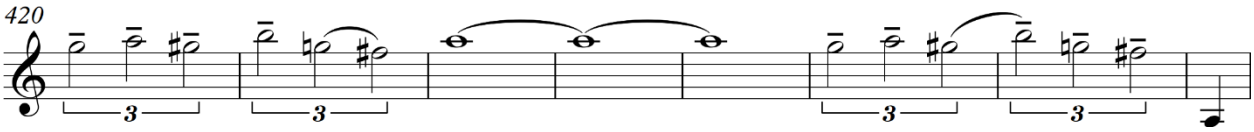
Example 3.31: Movement 1, Recapitulation, vln. 2 & cello, mm. 407-412



V. CODA

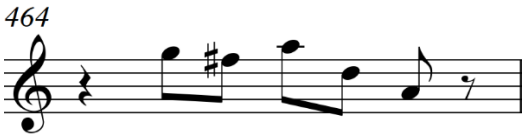
As the first half of the chorale theme draws to a close, instead of proceeding to the second half of the theme, the recapitulation is interrupted by the coda in m. 420. The coda contains a brand new theme from mm. 420-427, with the pitch class set (0135), which has been a subset of nearly all of the significant sets encountered thus far (see Ex. 3.32). This new theme seems to have a character similar to that of the "flighty" motive, in that it circles around an emphasized pitch (A).

Example 3.32: *Movement 1, Coda theme, reduction, mm. 420-427*



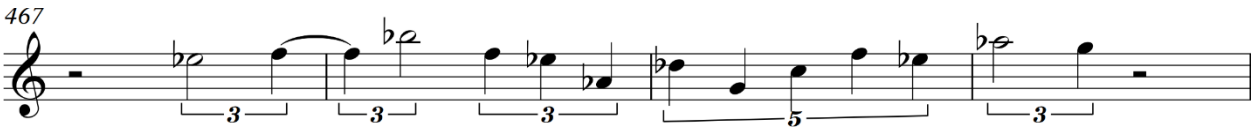
The coda continues from mm. 428-436 with a pentatonic motive at a T_5 transposition from the exposition, and another statement of the coda theme from mm. 437-439. This is superceded by the "flighty" motive from mm. 439-441, before the T_5 pentatonic theme once again enters from mm. 441-447. The excerpts from mm. 452-456 and 456-463 are exact T_7 transpositions of the transition from the exposition mm. 148-152 and 156-163. From mm. 464-466 a modified version of the cadential theme from Group 1 theme 1 is given in the woodwinds, which begins at a T_2 transposition level (E), but is quickly modified to tonify A (see Ex. 3.33).

Example 3.33: *Movement 1, Coda, reduction, mm. 464*



In mm. 467-470 there is a T_{10} transposition of the closing theme, which has been modified to retain the ascending Perfect 4th leap in the 2nd measure (see Ex. 3.34).

Example 3.34: *Movement 1, Coda, reduction, mm. 467-470*



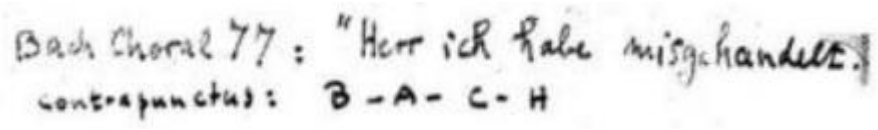
From mm. 472-474 the cadential theme from m. 464 is given once more, before the closing theme is also repeated from mm. 476-478. This closing theme omits of the first pitch from m. 469 (now m. 477), and enacts a half-step transposition (T_{11}) on the remaining pitches from the same measure. Following this, there is a focus from mm. 479-496 on a driving dynamic and accented sforzando triplet rhythm to conclude the movement with a sense of drama.

In this movement there is a general focus on the source material within the first Theme Group of the Exposition, a gradual deconstruction of the source material within the second Theme Group and Development, and a return to the source material within the Recapitulation and Coda. In other words, Foss begins this piece with a straight-forward citation of the chorale, and a generally consonant (though Neoclassic) tonal language. Within the second Theme Group, the set class of the chorale theme is gradually expanded through chromaticism and disjunct registral leaps until it is hardly recognizable. In the development Foss pits these two ideas against one another, the straight-forward chorale tune and his own derivation from the chorale (the closing theme) in an act of collage. Within the Recapitulation and the Coda there is a return to the more straightforward tonality of the first Theme Group, but it is still interspersed with Foss's derivations from Group 2.

Chapter 4: Movement 2

The second movement of the *Symphony of Chorales*, titled *Andante sost. (♩ = 46)*, is an ostinato variation movement based on a four-bar bass ostinato. Variation form is a typical second movement form in the German symphonic tradition, which is characteristic of Foss's Neoclassical style at the time. Variation form based on an ostinato, however, is more typical of the Baroque period than the Classical Period, due to its contrapuntal implications.[55] This is not surprising considering the nature of the source material for this work, or the particular emphasis upon contrapuntal organization within this movement. At the top of the score for this movement, Foss writes the following description (see Fig 4.1).

Figure 4.1: *Movement 2, Chorale No. 77 citation*

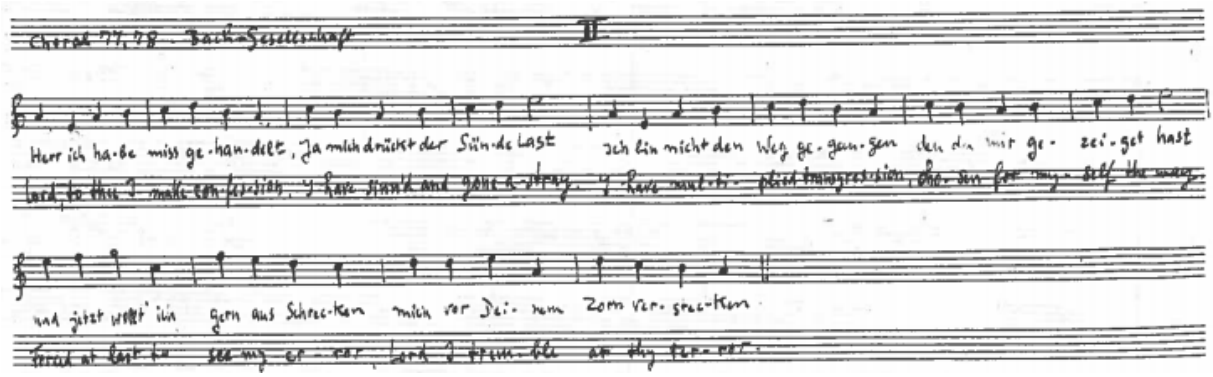


The listing of the chorale is consistent with each of the other movements, but his concession to the use of additional source material in the BACH motive is unique to this movement. This stresses the uniquely critical role of the additional motive in the movement.

Foss's citation of Chorale No. 77 contradicts the cover page of the score (see Fig. 4.2), where he indicates his use of both Chorales Nos. 77 and 78, though clearly notating the melody for Chorale No. 78.

[55] Glenn Spring and Jere Hutcheson. *Musical Form and Analysis: Time, Pattern, Proportion* (Long Grove, IL: Waveland Press, 2013), 160-164.

Figure 4.2: *Movement 2, Chorale No. 78 melody*



In the 39th volume of the Bach-Gesellschaft Ausgabe, which is what the composer has cited, Chorales Nos. 77 and 78 are both harmonizations of the same text, in the same key, with a few melodic and harmonic alterations. Though the composer lists both harmonizations on the cover page, it is clearly the melody from Chorale No. 78 which is used throughout, and which is given on the cover page of the score. This leads the author to believe that while Foss may have used the melody from Chorale No. 78, he also drew from the harmonic content of Chorale No. 77. This idea will be explored more throughout the study of this movement.

As discussed above, the main motivic content of the movement is drawn from two sources: the BACH motive, and the Chorales Nos. 77 and 78. The formal chart below is not intended to imply a simple binary form, as the actual form of the movement represents a variation form built around the consistent use of a bass ostinato (see Table 4.1). Rather, A and B are meant to represent the dominance of the BACH motive, and the chorale motive, respectively. The bass ostinato (which will be discussed below), is the main unifying force throughout each of the sections.

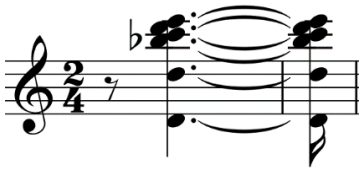
Table 4.1: *Movement 2, Table of formal design*

Section	Subsection	Measures	Tonal Center	Remarks
INTRODUCTION		1-2	N/A	Recollective tetrachord (0246)
A		3-42	G	Bass ostinato, BACH, string motive
	Transition	42-52	N/A	Chromatic falling motive, absence of ostinato
B		53-86	G	Chorale entrance, w/ BACH at m. 68
A’		87-129	G-C-G-Eb-E-F-Bb-D-E	Absence of chorale, fragmented bass ostinato, string motive, BACH
B’		129-163	G-Ab-(A)[56]-G-B-G	Altercation between BACH/Chorale
	Transition	164-170	N/A	Transition motive
CODA		171-204	G	Recollective tetrachords, chorale melody restated

In the first measure of the movement, the strings, horns, and upper woodwinds enter with a tetrachord which contains part of WT0 [10, 0, 2, 4], which the author has nicknamed the “Recollective Tetrachord” (see Ex. 4.1). The 4-note whole-tone idea is important within this movement and will recur literally and at various transpositions.

[56] The tonal center A is placed in parentheses because only the chorale melody appears in A, not the bass ostinato.

Example 4.1: *Movement 2, "recollective tetrachord", woodwind reduction, mm. 1-2*

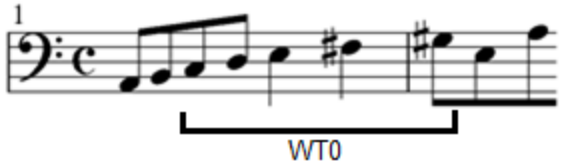


It is highly likely Foss would have been familiar with Alban Berg's *Violin Concerto* (1935), which famously quotes Bach's setting of "Es ist genug" from the Cantata *O Ewigkeit du Donnerwort* (BWV 60). Very conspicuously, this work also prominently features a 4-note whole-tone segment as the last four notes of its row, due to Bach's ascending 4-note whole-tone melody in the bass and soprano of the chorale. Additionally, both of these works not only draw inspiration from a Bach chorale harmonization, but both overtly cite it. Though it is unknown whether Foss intentionally mimicked this feature of Berg's work, it is very likely he drew inspiration from it.

I. SECTION A

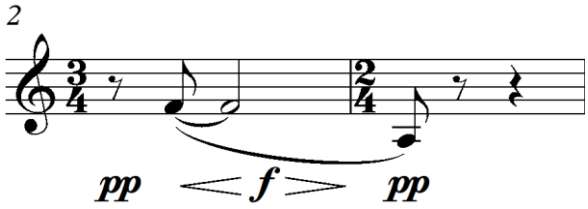
In Bach's Chorale No. 77 harmonization, the bass line of m. 1 into the 1st beat of m. 2 contains a melodic minor scale (see Ex. 4.2). This melodic minor scale contains the pitches C – D – E – F# – G#, five of the six pitches from WT0. These pitches from the opening of Bach's chorale correspond to the same whole-tone scale segment Foss uses at the outset of the movement. In both works, these pitches are also the 3rd, 4th, 5th, and raised 6th scale degree in their tonic keys of Am and Gm, respectively.

Example 4.2: *Bach Chorale No. 77, Bass voice, mm. 1-2*



The “recollective tetrachord” is immediately interrupted in m. 2, by a descending melodic line from Eb to G in the bass clarinet, which foreshadows the bass ostinato to be introduced in the next measure, while also introducing the idea of the opposing whole-tone scale, WT1 (see Ex. 4.3).

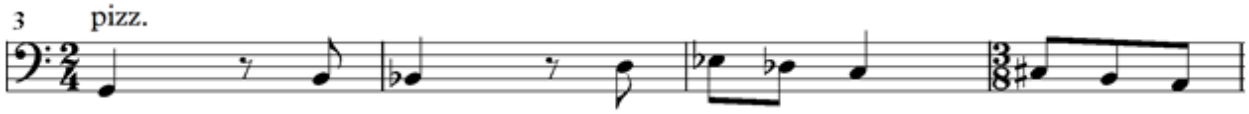
Example 4.3: *Movement 2, Introduction, bass clarinet, mm. 2-3*



Within this brief 2 measure introduction, we are already introduced to the animating energy of this movement, which is the conflict between two contrasting forces. These forces are represented by various motives and ideas throughout the movement (such as contrasting whole-tone scales), but ultimately take the form of the BACH motive and the chorale melody.

In m. 3, a four-bar bass ostinato is introduced in the double basses, which will play a pivotal role in the course of this movement. The ostinato will recur literally, and at various transpositions and rhythmic displacements throughout the movement (see Ex. 4.4).

Example 4.4: *Movement 2, A section, bass ostinato, double bass, mm. 3-6*

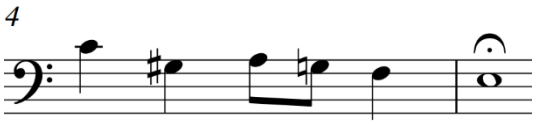


This ostinato is made up of the pitch class set [7, 9, 10, 11, 0, 1, 2, 3], ordered in ascending fashion, from low G to high Eb. Notice that the final bar of the ostinato in m. 6 into the first beat of m. 7, with the Eb from measure 5, forms five of the six tones that comprise WT1, pitch class set [7, 9,

11, 1, 3]. Without the Eb from m. 5, these four consecutive pitches from mm. 6-7 form the pitch class set [7, 9, 11, 1], another 4-note whole-tone set. This is in opposition to the segment of WT0 [10, 0, 2, 4] heard in m. 1. Also notice the general shape of the ostinato, rising from G to Eb, and then gradually descending back to G. It is this shape which the bass clarinet foreshadows in mm. 2-3.

The final bar of the ostinato with its resolution on the first beat of the next measure (C#-B-A-G) (mm. 6-7) also resembles an important part of the melody from Chorales Nos. 77 and 78, namely a descending fourth from F to C, and then D to A, in mm. 6 & 8-9 of Chorale No. 77, and mm. 7-8 & 9-10 of Chorale No. 78. The main alteration would be the expansion of each interval to a major 2nd, eliminating any half-steps to create a whole-tone scale. The ostinato from the last note of m. 5 into m. 6 (see Ex. 4.4) also resemble the bass line from beat two of mm. 4-5 in Chorale No. 78, with the only difference being the whole-tone step down in the ultimate note of the ostinato, vs. the half step in the chorale (see Ex. 4.5). The derivation of the remainder of the ostinato can be explained by observing the BACH motive, which appears first in the cello in m. 7.

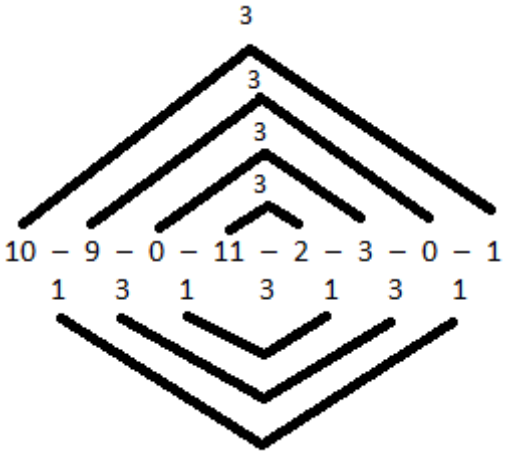
Example 4.5: *Bach Chorale No. 78, bass voice, mm. 4-5*



From mm. 7-10, the cello gives a clear statement of the BACH motive (Bb – A – C – B), all within a single octave, and in sync with the 4-bar phrase structure created by the ostinato. This is followed in mm. 11-14 by I_0 (D – Eb – C – C#), with some octave displacement, completing the recurring 8-bar statement (Bb – A – C – B – D – Eb – C – C#). If you take a close look at this subject,

it contains perfect inversional symmetry, or in other words, its intervallic content is the same forwards as backwards, forming a perfect intervallic palindrome. You can also see that the minor third is clearly an emphasized interval, as that is the span of the 4-note cell (BACH) of the 8-bar statement (see Fig. 4.3).

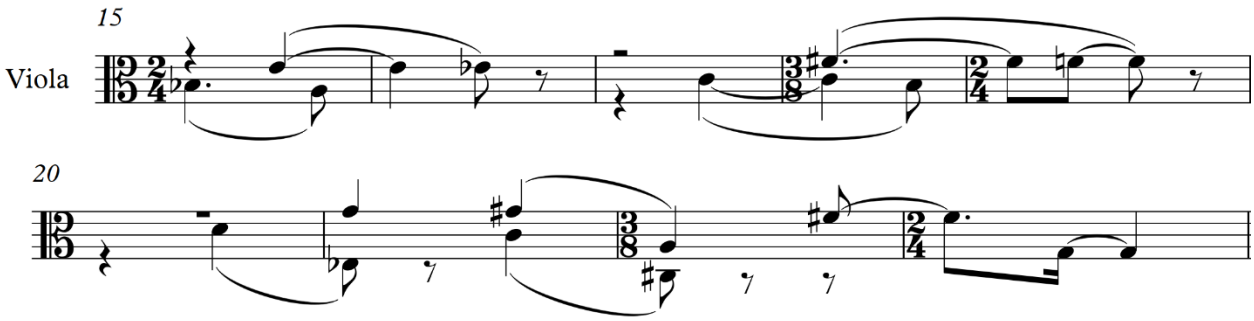
Figure 4.3: *Movement 2, 8-bar BACH statement symmetry illustration*



The total span of the 8-bar statement is the tritone A-Eb, a particularly important interval class in this movement. You should recognize this set [9, 10, 11, 0, 1, 2, 3] as a subset of the Bass Ostinato [7, 9, 10, 11, 0, 1, 2, 3].

This first 8-bar statement sets off a series of canonic imitations in the manner of a fugal exposition in the strings, however this time each statement is doubled at the tritone (E – Eb – F# – F – G# – A – F# – G). The 8-bar statement with its counterpart at T_6 presents the full aggregate every eight bars [9, 10, 11, 0, 1, 2, 3] [3, 4, 5, 6, 7, 8, 9], and consistently stresses the tritone interval. The cellos give the 8-bar statement from mm. 7-14, the violas doubled at the tritone from mm. 15-23 (see Ex. 4.6), and the violins doubled at the tritone from mm. 23-30.

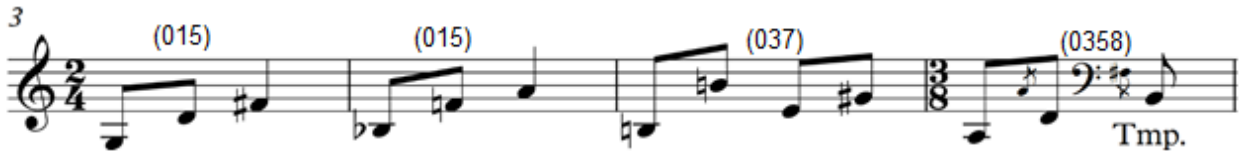
Example 4.6: *Movement 2, BACH 8-bar statement, viola, mm. 15-23*



Each successive entry is stated an octave higher than the previous entry, beginning with Bb2 in the cello entry, and continuing with Bb3 in the viola entry, Bb4 in the 2nd violin entry, and Bb5 in the 1st violin in m. 31. In m. 31, the violins and violas enter with the BACH motive on E, Bb, D and B, in descending order from 1st violins to viola, and in m. 32 the cellos enter with the BACH motive beginning on G. These entries do not complete their 8-bar statements, but instead stop short of completing their inversions. The statements on D, B and G all converge with the T_0 and T_6 statements on the first pitches of their inversions, D and G#. This leads to the first breakdown of the ostinato in m. 37, and the end of the A section in m. 42.

The final motive of importance in the A section is nicknamed the "string" motive and first appears in the violins from mm. 3-6 (see Ex. 4.7).

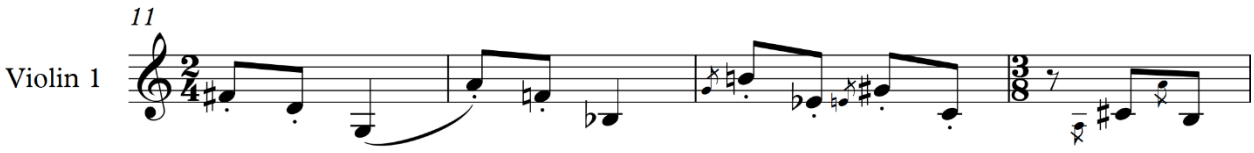
Example 4.7: *Movement 2, Section A, "string" motive, violin, mm. 3-6*



Both measures 3 and 4 form the trichord (015), while measures 5 and 6 respectively form (037) and (0358). This motive seems to be primarily designed as counterpoint for the Bass Ostinato. Its normal form is [2,4,5,6,7,8,9,10,11] which not only contains each complementary pitch

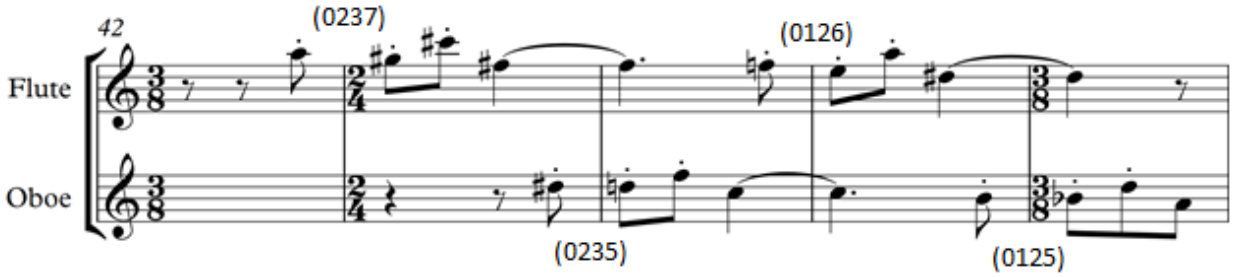
missing from the Bass Ostinato, but also has a prime form (012345679), which is quite similar to the Bass Ostinato's (01234568). These two motives together form a number of tonal references; for instance, the pitches taken from m. 3 form a Gmaj7 chord, and those from m. 4 form a Bbmaj7 chord. Measures 5 and 6 contain similar references, and this commonality can be seen from the common subset (0158) which exists in each measure. Mm. 3 and 4 both form the set (0158), m. 5 the set (013458), and m. 6 the set (01358). Throughout the movement these sets will expand and contract, but the general shapes and tonal references will remain consistent. This motive is often subjected to contrapuntal devices, such as rhythmic diminution and retrograde (at the level of each measure, not at the level of the motive as a whole). For instance, the "string" motive is presented in retrograde by the 1st violins in m. 11 (see Ex. 4.8).

Example 4.8: *Movement 2, Section A, retrograde "string" motive, violin 1, mm. 11-14*



After the A section, there is a transition from mm. 42-52, which is marked by the absence of any of the clear motives from the A section, and the first absence of the ostinato figure. Due to the lack of the ostinato, this is also the first time there has been a lack of a clear tonal center. This is exacerbated by the fact that the full chromatic aggregate appears minus G, which doesn't appear until the last beat of m. 47. Though the ostinato is not overtly given, it still influences the motivic content of the transition. For instance, in m. 42 the flute and oboe both state a new four pitch motive, which generally consists of a descending semitone, which then rises some interval and is followed by a descending 5th (see Ex. 4.9).

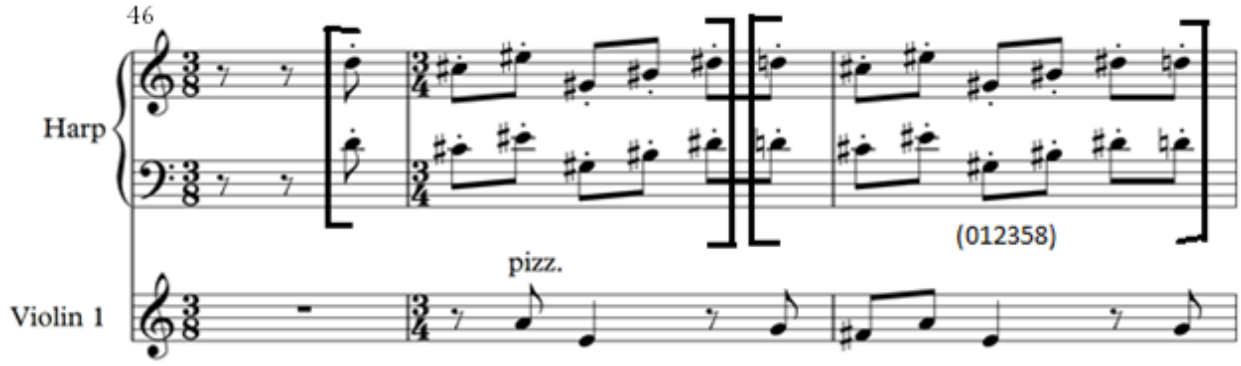
Example 4.9: *Movement 2, transition motive, flute & oboe, mm. 42-46*



If the flute and oboe are considered as separate lines, each successive statement contracts to become more chromatic and compact, leaving (0125) in the oboe as the most compact four note motive. Even more interestingly, considering each instrument as a separate line, it can be seen that the oboe's complete statement is I_0 of the ostinato without C#, and the flute's complete statement is T_6 of the ostinato without G. This directly ties the transition motive to the ostinato, in turn tying it directly to the BACH and inversion statement, and is a homage to the sort of economic use of motivic material that J.S. Bach was well-known for.

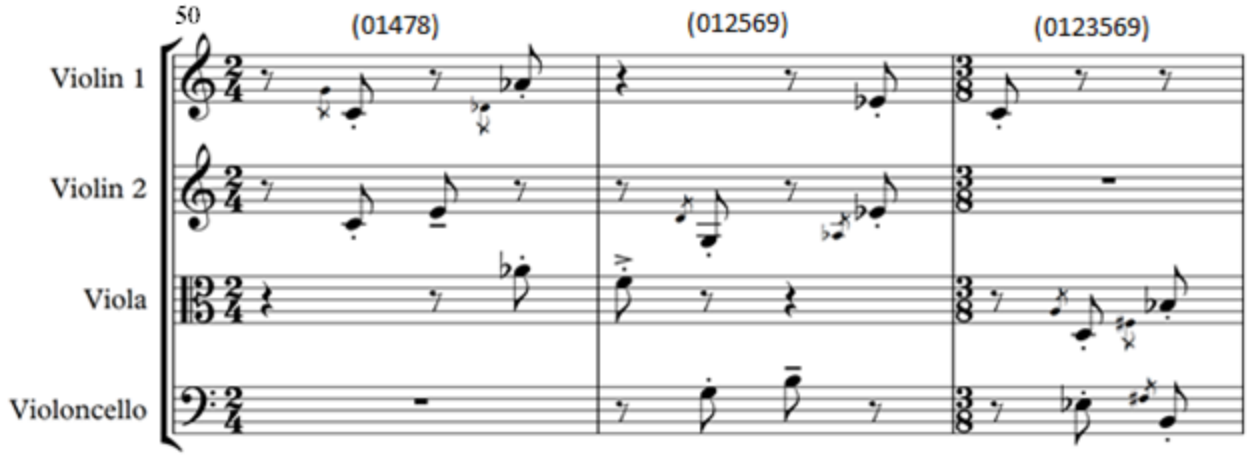
In the last beat of m. 46 the transition motive is passed to the harp, and expanded from a four-note cell to a six-note cell. This six-note cell has the prime form (012358), which outlines the same basic shape contained within the ostinato (see Ex. 4.10). The initial semitone is retained, after which point a C#maj9 chord is outlined. This is the most distant chord from the G tonality, which has been outlined by the ostinato and "string" motive as a Gmaj7. This transition motive is doubled at the 4th (then major 3rd) by the 1st violins from mm. 47-48, which all together create the prime form (0123456789), a superset of the ostinato motive.

Example 4.10: *Movement 2, harp & violin 1, mm. 46-48*



The transition motive from Ex. 4.10 breaks down in m. 49 with the simultaneous use of a D# minor and E minor chord in the celesta, strings, and bassoon, which leads to a final passage in the strings in m. 50. This final passage resembles the "string" motive in its use of grace notes and emphasis upon 3rds and 5ths. It also basically outlines a C augmented chord in the first measure, and a G augmented chord in the second measure (see Ex. 4.11).

Example 4.11: *Movement 2, strings, mm. 50-52*

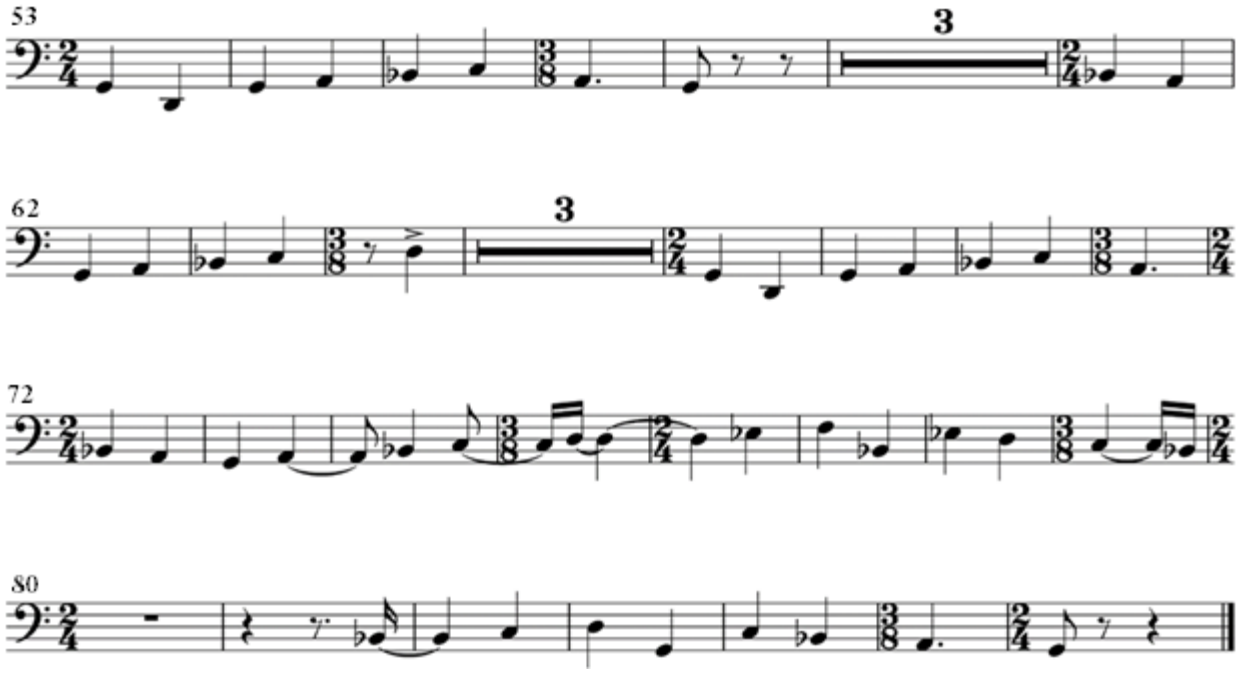


II. SECTION B

The B section begins in m. 53, which is not only noteworthy for the reentrance of the ostinato, but also for the first entrance of the chorale. The chorale is stated in G minor, and

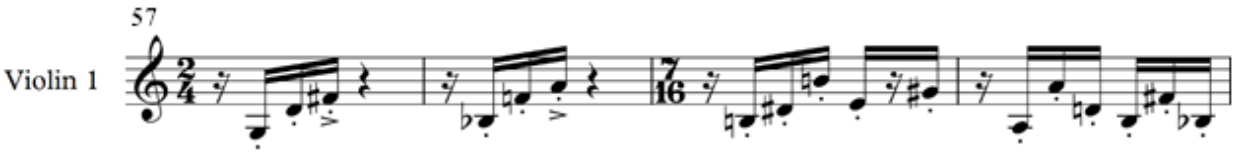
mainly in the A trumpet and 3rd trombone, though other instruments join in at times. It is stated with mainly quarter and eighth notes and lasts the length of the B section (see Ex. 4.12).

Example 4.12: *Movement 2, chorale reduction, mm. 53-87*



The chorale is embedded within the regular four-bar phrase structure of the ostinato, which it is now clear has been designed to work in counterpoint with the chorale. After the first four bars of the chorale, there is a four-bar interruption which introduces a rhythmically diminished version of the "string" motive in 16th notes (see Ex. 4.13).

Example 4.13: *Movement 2, rhythmically diminished "string" motive, violin 1, mm. 57-60*

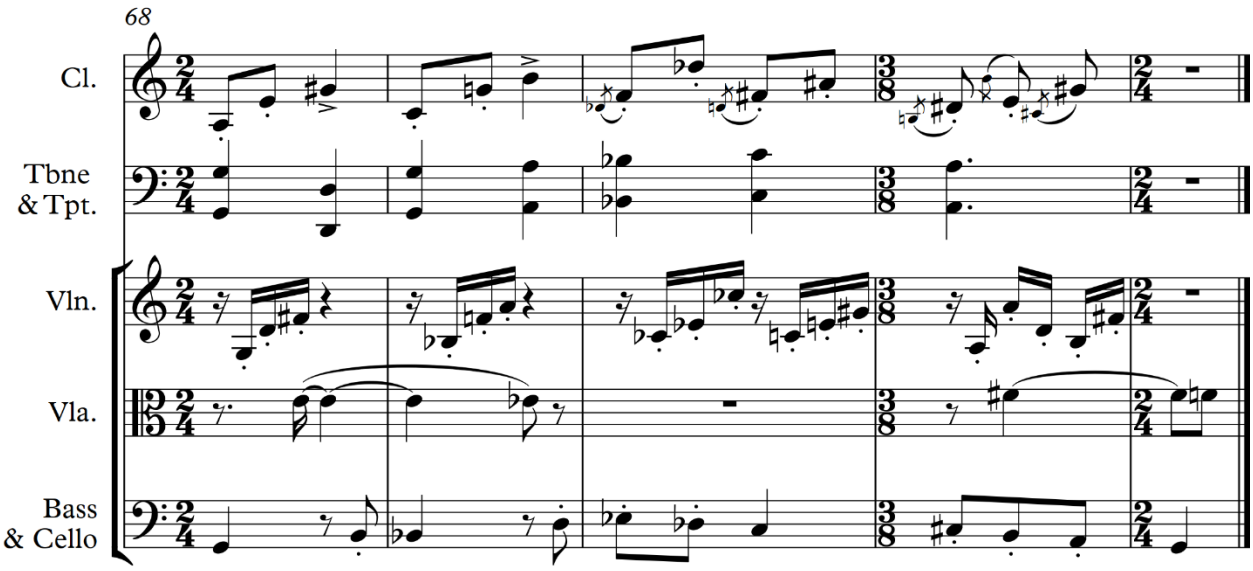


This is the first appearance of a rhythmic value less than an 8th note, representing an increase of rhythmic tension in the movement. There is a final interruption eight bars later, after a brief

variation of the ostinato. The ostinato is still relatively stable in this section, though there are instances where it adjusts for the sake of counterpoint with the chorale motive or drops out altogether for a few measures.

In m. 68, the BACH motive enters for the first time in the B section at T_6 with a four-note statement, which marks a moment of quintuple counterpoint (ostinato, BACH, rhythmically diminished "string" motive, chorale and "string" motive) (see Ex. 5.14). This contrapuntal density highlights the rhythmic tension mentioned above, which is in this case associated with the first actual clash of the two motives Foss has pitted against one another in this movement.

Example 4.14: *Movement 2, quintuple counterpoint, orchestral reduction, mm. 68-72*

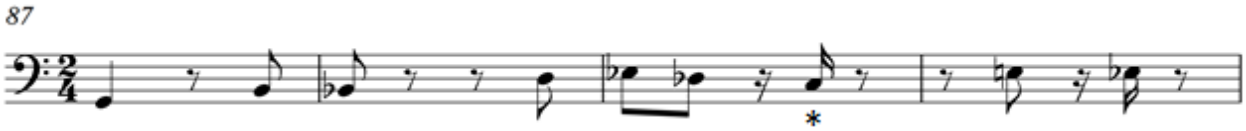


This four-note BACH statement concludes in m. 73, allowing the chorale to continue uncontested until the pick-up to m. 81, at which point the BACH motive at T_0 and T_1 sound simultaneously, during a brief two-measure rest of the chorale. The T_1 statement does not continue with its inversion, but the T_0 statement does, ending one bar before the conclusion of the B section in m. 86.

III. SECTION A'

The A' section begins immediately in m. 87 with the bass ostinato spread throughout three octaves in each section of the orchestra at a forte dynamic, accompanied by the new 16th note "string" motive. Before the bass ostinato is completed for the first time, it modulates to begin on C (shown by an asterisk) (See Ex. 4.15).

Example 4.15: *Movement 2, bass ostinato reduction, mm. 87-90*



This A' section is more than anything else characterized by the now modulatory and often incomplete character of the ostinato. In fact, the ostinato will change tonal centers at least nine different times throughout the course of this section (see Table 4.2).

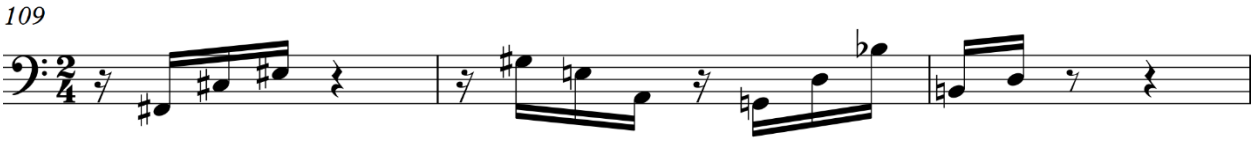
Table 4.2: *Movement 2, Table of ostinato tonal centers, mm. 87-129*

Tonal Center	Measure Number
G	87-89
C	89-92
G	93-94
Eb	95-98
E	99-102
F	103-105
Bb	105-108
Ambiguous	109-117
D	118-121
Ambiguous	121-126
E	126-129

The ambiguous sections noted above are rather interesting. In both cases, the ostinato drops out, and fragmented versions of the 16th note "string" motive and the BACH motive are the only

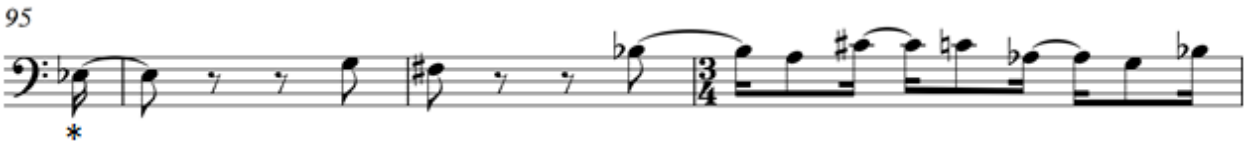
discernable features. An assumed tonal center can be gathered in some cases by the transposition level of the 16th note "string" motive, but in other cases it is too ambiguous to know for sure. For instance, the ostinato first drops out in m. 109, at which point the 16th note "string" motive begins as if it were at T_{11}, which would indicate a tonal center of F# (see Ex. 4.16). The first beat of m. 110 seems to confirm this, but then suddenly beat two and following disrupt this notion. A similar phenomenon occurs at the end of m. 121 with the tonal center E, the beginning of m. 123 with the tonal center G#, and m. 124 with the tonal center Bb.

Example 4.16: *Movement 2, "string" motive reduction (T_{11}), mm. 109-111*



In addition to this, the ostinato will continue to feature rhythmic displacement, as seen in mm. 89-90 (see Ex. 4.15, pg. 64). Sometimes 8th and 16th notes are added and subtracted, and other times ostinato modulations simply take place on, and emphasize, an off-beat. For instance, the arrival of C in m. 89 is delayed by a 16th rest, therefore adding a 16th note value and emphasizing an off-beat (the 2nd 16th note of the 2nd beat). This insertion of a 16th rest is corrected by the diminished rhythmic value of the C to a 16th note, so that the anticipated value of the two 8th rests is fulfilled. The same phenomenon occurs with the Eb in m. 90, and the G which follows it in m. 91. Other examples of rhythmic displacement include entries an 8th or 16th note too early, which are then corrected by a tie over the bar so that the off-beat is not emphasized, but instead the note value is increased by an 8th or 16th note. This occurs in Example 4.17, followed in m. 98 by a disruptive rhythmic displacement and insertion of a chromatically expanded BACH motive to disguise a half-step modulation to E in m. 99.

Example 4.17: *Movement 2, rhythmically displaced bass ostinato, mm. 95-98*

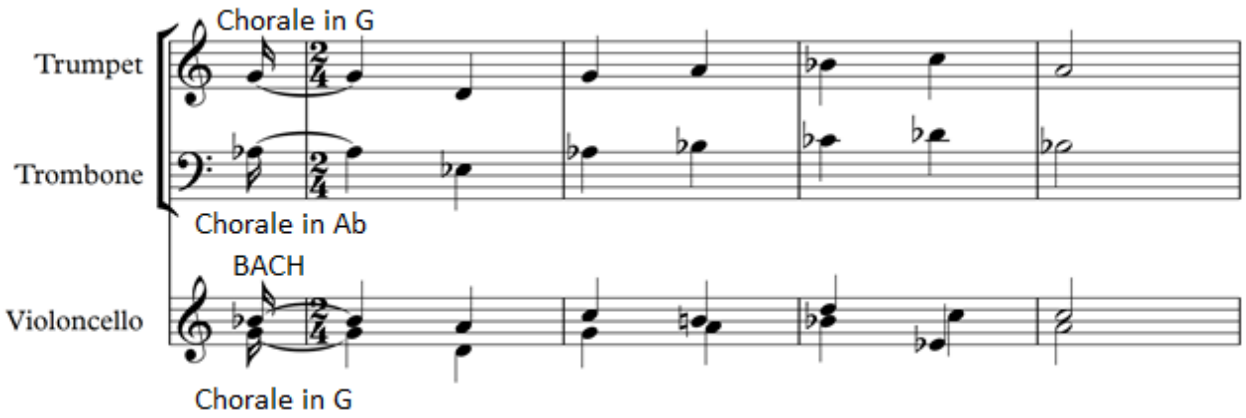


The other highly influential motive in the A' section is the BACH motive. Unlike the initial A section, the entrances are not regulated in a strict way either in their pitch content or their entry level. The viola and 2nd oboes begin with a T_6 statement in m. 102, while a partial statement at T_{10} occurs in the 2nd violins and cellos in m. 103, and another full statement begins at T_9 in the 1st violins and oboes in m. 104. This elides with another group in m. 108 which occur at T_5 and T_{11}, a tritone apart, but each transposed down a half-step from the original. This leads to one lone four-bar statement in m. 112 at T_3, and two more four-note statements in m. 121 at T_3 and T_9, another tritone. The unregulated and seemingly unruly nature of the BACH entrances in this section add to the strident nature and rising tension of this section.

IV. SECTION B'

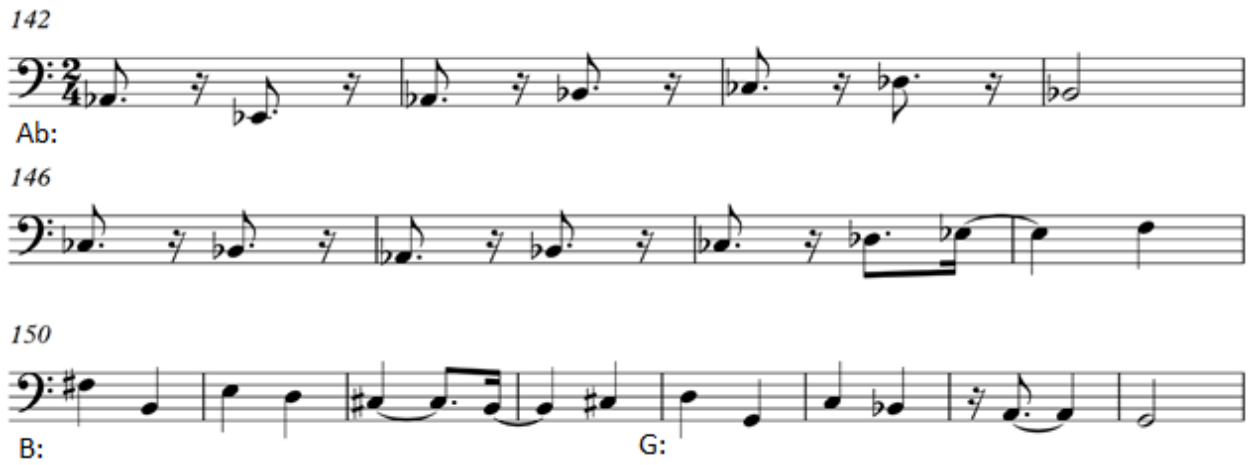
The B' section begins on the last 16th note of m. 129, and it is marked by the initial absence of the ostinato and the re-entrance of the chorale. This time, however, the chorale is stated simultaneously in G and Ab, along with the first seven notes of the 8-note BACH statement. This creates an extremely strident passage, which is even more ambiguous due to the lack of the ostinato for the first four bars (see Ex. 4.18).

Example 4.18: *Movement 2, A' chorale, trumpet, trombone & cello, mm. 129-133*



This is followed by a four-bar interruption from mm. 134-137, at which point the ostinato and 16th note "string" motive are restated in G. The ostinato drops out and the chorale continues in G at the end of m. 137, with dissonant rearranged versions of the BACH motive. In m. 142, the ostinato and chorale begin on Ab, and the chorale is doubled for the first four bars in A (see Ex. 4.19). In m. 149 the ostinato drops out, and the chorale modulates to B. As discussed in chapter 2, this is the point in the chorale where a relative major modulation occurs. This modulation to B (enharmonically equivalent to Cb, the relative major) is comparable to the chorale, however the B we get is in the minor mode, which thwarts the expectation created by the first B section.

Example 4.19: *Movement 2, B' chorale reduction, mm. 142-157*

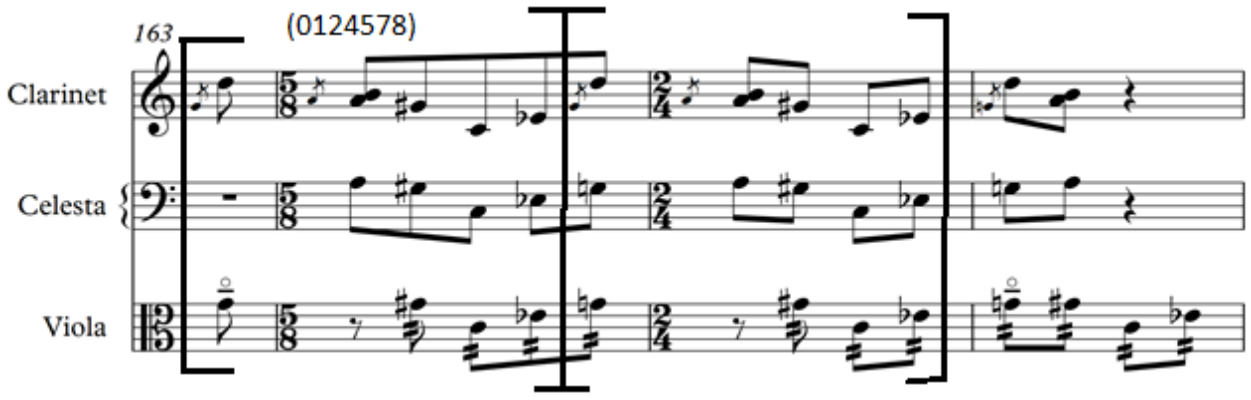


As in the chorales, this modulation swiftly moves back to the home key, however this time modulating a chromatic mediant back to G.

This leads to the most climactic moment of the movement from mm. 157-163, which features mainly a mixed 3rd G chord at a fortissimo dynamic. There are a number of extended techniques during this passage, such as two octave trombone slides, overblown horns to employ microtonal glissandi, two octave leaps in the strings, and tremolo in the clarinets and bassoons. Each of these techniques add to the overall drama of the passage, which brings a climactic end to the altercation between the two primary motives in this piece.

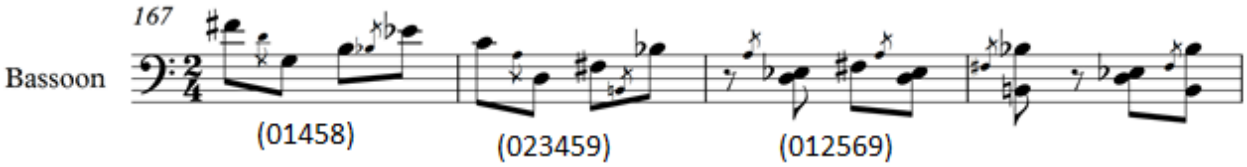
In m. 164 there is a transition much the same as that from mm. 42-52 (see Ex. 4.20). This transition utilizes the harp transition motive from m. 46, which outlined a C# major 7 chord. The transition motive here in m. 163 instead outlines a G# major 7 chord, which is evident particularly in the viola part. The pitch classes played by the viola and celesta (without the clarinet) form the set class (01258), which is strikingly similar to the m. 46 transition motive's prime form (012358).

Example 4.20: *Movement 2, transition motive, cl. (concert pitch), cel. & vla., mm. 163-165*



Th transition shown above then shifts into something related to the string transition motive from m. 50, except this time it appears in the bassoon (see Ex. 4.21). As in the equivalent string transition motive, the first two measures outline augmented triads (G augmented and D augmented). One of the subsets per measure is the same, while the other two are closely related. The entire set is (012345689) with the addition of G# from the previous measure (m. 166), which is a closely related set to the original "string" motive.

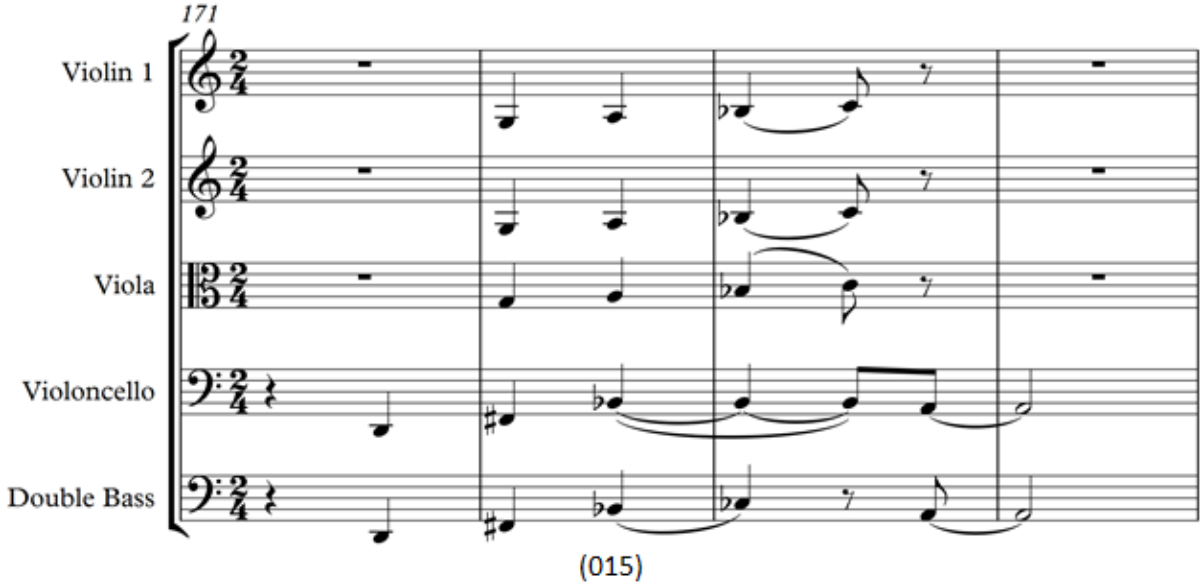
Example 4.21: *Movement 2, transition, bassoon, mm. 167-170*



V. CODA

The final section of the movement, a coda, begins in m. 171. The "recollective tetrachord" appears in the horns and bassoons in m. 171, which has not been heard explicitly since the opening of the movement. In the coda, the ostinato, "string" motives, and BACH statements all come to a halt. The chorale is heard in the strings and percussion, and the woodwinds and horns accompany the chorale with statements of the recollective tetrachord and tone clusters. As the string section presents the chorale in m. 171, the initial tonic pitch is omitted (G), and the D is given in the cellos and bass, while the majority of the statement occurs in the violins and violas. The bass and celli do not follow the melody in mm. 172-173, instead playing the subset (015), which creates a harmonic minor second against each pitch of the melody, obscuring the clarity of the melody (see Ex. 4.22).

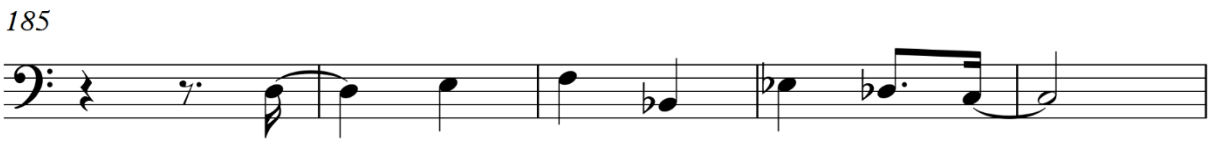
Example 4.22: *Movement 2, coda, strings, mm. 171-174*



In m. 175, the strings delegate the next portion of the chorale theme to the timpani and the harp, while the violins give the cluster [3, 4]. In m. 179 the recollective tetrachord returns, initiating a nearly exact repetition of mm. 171-178, with the exception of the string accompaniment, that is transformed into an E7/D chord.

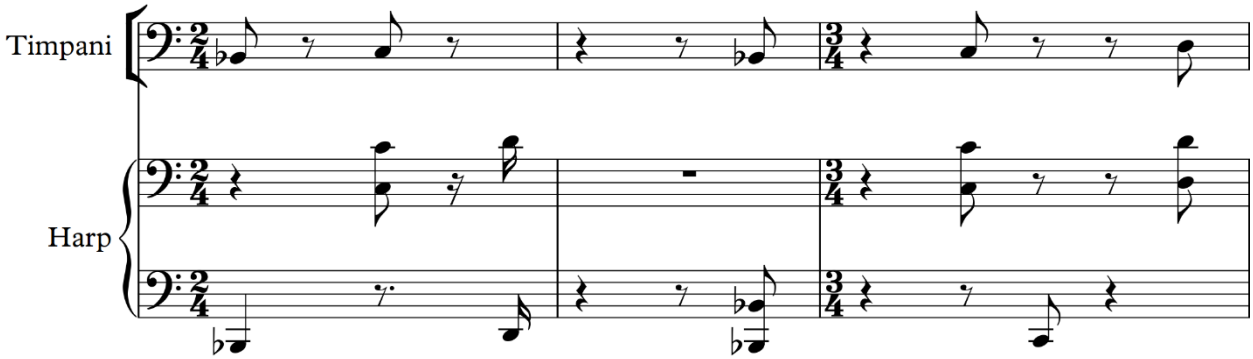
In m. 186 a slight alteration is made to the chorale, as in the B' section. Instead of the expected G minor to Bb major modulation, the modulation is to Bb minor (see Ex. 4.23). This is slightly different from the B' section, which modulated a minor 3rd in the same way from Ab minor to B minor. Additionally, there is the initial raised sixth scale degree in G minor (E natural, m. 186) that was present in the B' section as well. This modulation is reflected in the pitches of the recollective tetrachord in m. 187, which is transposed for the first time to T_3 [1, 3, 5, 7].

Example 4.23: *Movement 2, coda, chorale reduction, mm. 185-190*



Immediately after this, the following phrase is taken up by the timpani and harp, but left incomplete twice before it is finished by the strings. Interestingly, this hesitation occurs in the middle of the word “tremble”, from the phrase “Lord I tremble at thy terror”. This is an interesting instance of tone painting, in which the melody itself literally trembles as the text suggests (see Ex. 4.24).

Example 4.24: *Movement 2, timpani & harp, mm. 191-193*



After the melody is completed in m. 196, there is a brief suggestion of the “string” motive and ostinato from mm. 198-199, but not enough to disturb the tranquility that has just been achieved. From mm. 202-204 the recollective tetrachord recurs in its original orchestration, with the descending bass clarinet line, and the movement ends exactly as it began.

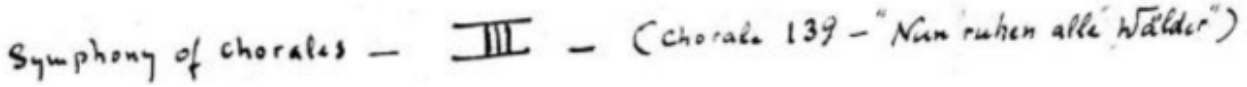
This second movement is incredibly contrapuntal and economic in its use of motivic material. There is very little material used that is not derived from the primary motivic devices, which are the bass ostinato, “string” motive, BACH motive, and the chorale melody. The bass ostinato, presented from the very beginning, serves as the constant contrapuntal partner to the confrontation between the Bach chorale melody, and Foss’s derived BACH motive and inversion. In much the same way as the first movement, the climax of this work is reached

when Bach's motives (the chorale) and Foss's derivations (the BACH motive) come into conflict with one another in the B' section. In large part, this movement can be represented by a separation of motives in the A and B section, the combination and chromatic treatment of both in the B' section, and the return to a more peaceful statement of the chorale in the coda.

Chapter 5: Movement 3

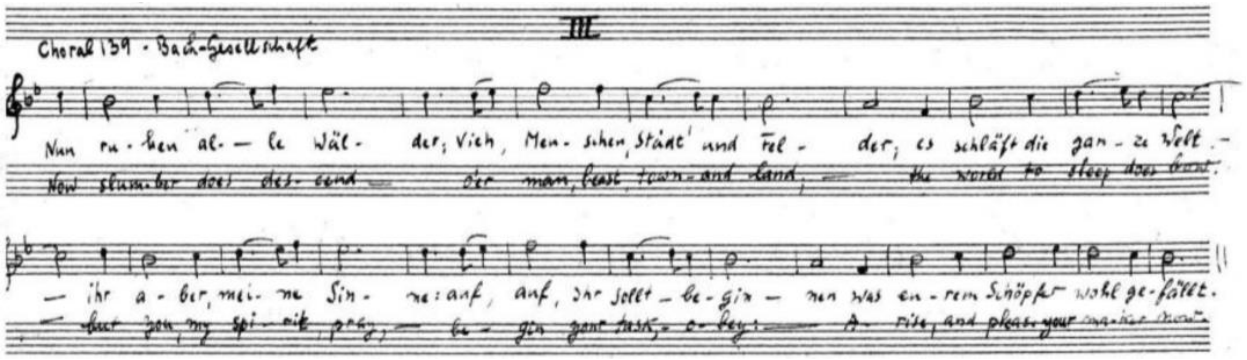
The third movement of the *Symphony of Chorales*, titled *Allegretto tranquillo. (♩. = 58)*, is a Scherzo and Trio movement, in a compound ternary form, ending with an extended coda. This is a typical third movement form in the German symphonic tradition, which is characteristic of Foss's Neoclassical style at the time.[57] At the top of the score for this movement, Foss writes the following subtitle (see Fig. 5.1)

Figure 5.1: *Movement 3, chorale citation*



The listing of a single chorale is consistent with the first movement, differing from the abnormal listing of two chorales and an additional motive in the second movement (see Fig 5.2).

Figure 5.2: *Movement 3, Chorale No. 139 melody*



This movement is fairly economic in its use of motivic material, as almost all of the motivic material is drawn from the chorale. The form of this movement is the standard compound ternary of a Scherzo and Trio movement (see Table 5.1).

[57] Caplin, *Analyzing Classical Form: An Approach for the Classroom*, 607-609.

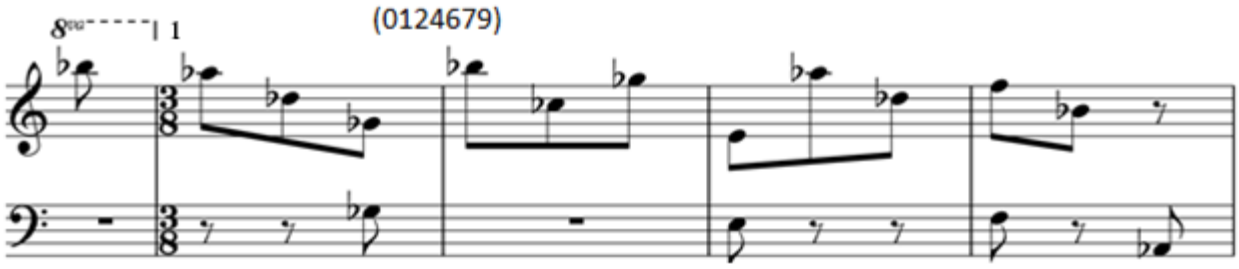
Table 5.1: *Movement 3, Table of formal design*

Section	Subsection	Measures	Tonal Center	Remarks
INTRODUCTION		1-4	(Gb)	Klangfarbenmelodie
SCHERZO		4-99		
	A	4-28	Eb	Chorale theme in 1st violin
	Transition	28-34	(Cb) – (Ab)	Extended klangfarbenmelodie
	B	34-84	F - Db	Fragmented chorale theme, polytonal, leads to the "broken" motive
	A'	84-99	Eb	Incomplete chorale theme
TRIO		100-152		
	Section 1	100-111	B	Trio theme in horns - continuation of chorale theme
	Section 2	112-136	G	Trio theme in trumpets
	Section 3 ---------- Retransition	137-152	E/C	Rhythmic relaxation, fragmentation of original theme
SCHERZO		153-254		
	A	153-175	A	Chorale theme in mandolin
	Transition	175-179	(F)	Modified klangfarbenmelodie
	B	179-229	D - Eb	First section transposed down a minor 3rd
	A'	229-254	Bb - Gb	Broken/Incomplete
CODA		254-302	Eb	"Broken" motive in mandolin, string pad

The very beginning of the movement features a four-measure introduction consisting of a *klangfarbenmelodie* which occurs mainly in the flutes, clarinets, and violins (see Ex. 5.1). Notice

that this introduction is the same length as the first phrase of the Chorale No. 139 melody, with the pick-up included. Though the melody does not appear in the correct order, it does contain similar pitch content and primarily diatonic motion. This *klangfarbenmelodie* is closely connected to the pitch-class content of the A sections in general and will recur between the A and B themes of the Scherzo. The prime form and normal form for this sequence is [4,5,6,8,10,11,1] (0124679). Though there is no true tonal center, the following passage should be understood as a Gb major collection with an added b$\hat{7}$ and an omitted $\hat{6}$. The significance of this will become clear once related to the pitch-class set of the Scherzo chorale theme.

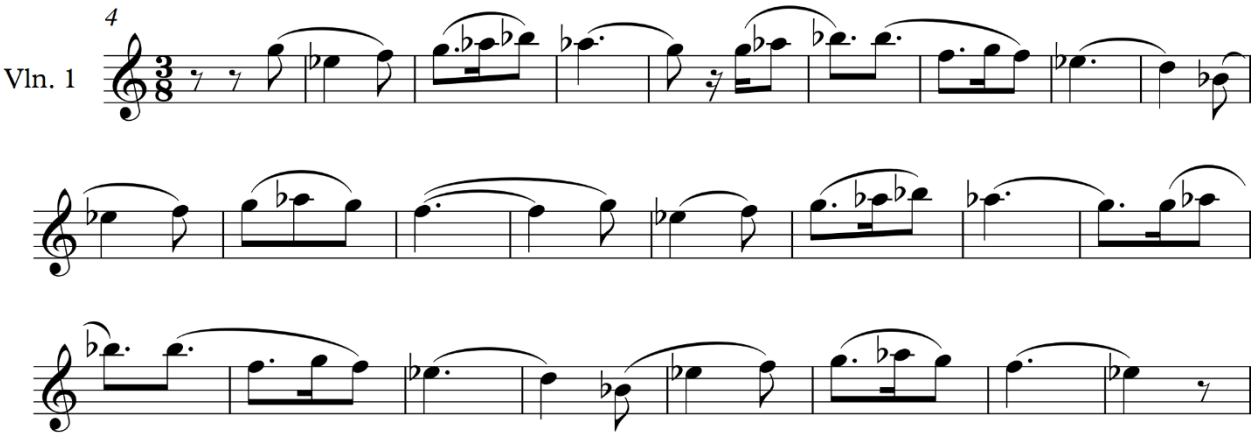
Example 5.1: *Movement 3, klangfarbenmelodie introduction, reduction, mm. 1-4*



I. SCHERZO (A) SECTION

There are striking similarities between the pitch class content of the *klangfarbenmelodie* and that of the chorale, which begins in m. 4 as the A theme of the Scherzo. The chorale melody features every note of the Eb major scale, with the exception of the $\hat{6}$. Therefore, the prime form and normal form for the chorale is (013568) [2,3,5,7,8,10]. Notice the slight alteration from the chorale tune on the cover of the score, consisting of two dotted 8th notes in mm. 9 and 21 where Foss notated a quarter note followed by an 8th note (see Ex. 5.2).

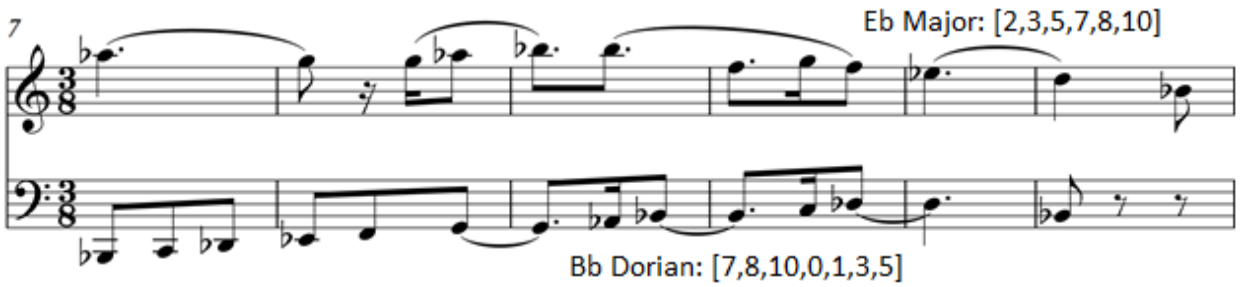
Example 5.2: *Movement 3, Scherzo A theme, violin 1, mm. 4-28*



If only considering the prime forms of the *klangfarbenmelodie* and chorale melody, the similarities are not obvious at first glance. However, if the pitch Db ($b\hat{7}$ in Eb) were to be added to the chorale's pitch collection, it would produce the set [1,2,3,5,7,8,10] (0124679). This would mean that the *klangfarbenmelodie* has a T_3 relationship to the chorale melody. This T^3 relationship, along with its complement T^9, will be an important feature of this movement as nearly every modulation is to a 3rd related key. Throughout the movement, Foss will use pitch collections which very closely resemble diatonic scales, but with pitches added or omitted at various points. This ambiguity often presents itself in the form of polytonality and polymodality.

There are two main accompaniment patterns for the chorale melody in the A section of the Scherzo. The first is the melodic or scalar pattern, which can be seen in the bass clarinet from mm. 7-12, and the flutes from mm. 12-16. Foss often utilizes bitonality and bimodality within these scalar sections. For instance, consider this reduction of mm. 7-12 (see Ex. 5.3).

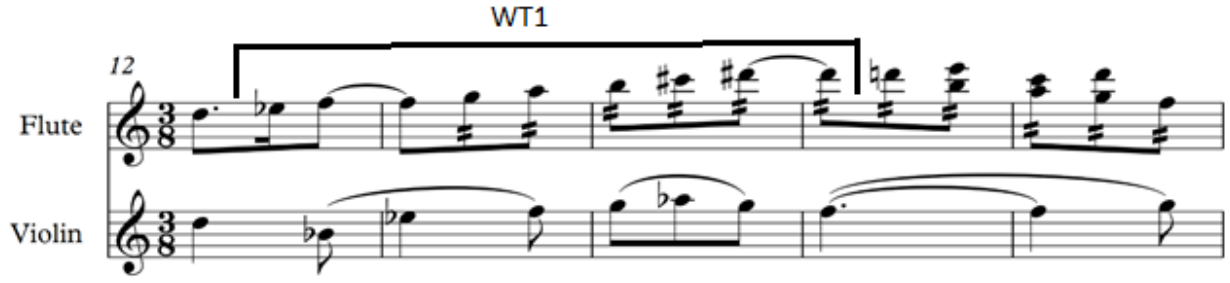
Example 5.3: *Movement 3, orchestral reduction, mm. 7-12*



This Bb Dorian melody in the bass clarinet and contrabass harmonizes the Eb major chorale melody in the 1st violins, and between the two, the only difference is the Db/D discrepancy between Bb Dorian and Eb major. With these two melodies combined, the set is (0123578T). This represents another expansion of pitch-class content. For example, the prime form of the chorale melody in Eb (minus $\hat{6}$) is (013568). If the b$\hat{7}$ is added, this makes the set (012469), which appears with the *klangfarbenmelodie*. Once the $\hat{6}$ is added to the set, the current prime form from the combination of the two previous modes (0123578T) is the result.

A second example of the melodic accompaniment pattern is the flute melody from mm. 12-16 (see Ex. 5.4). This passage is mainly an ascending WT1 scale beginning on the tonic Eb in m. 12, which chromatically expands in mm. 15-16.

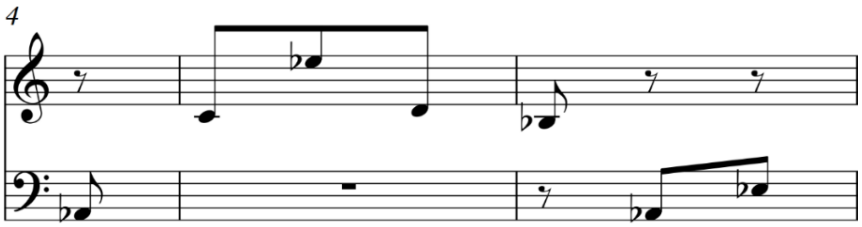
Example 5.4: *Movement 3, flute & violin, mm. 12-16*



This creates the set (01234568T), which is only slightly altered from a set that will be encountered twice in the second accompaniment pattern (01234578T). This set is what would have occurred if the A and B had been Ab and Bb, which would have been more consistent with the pitch content of Bb Dorian and Eb major. Additionally, the flutes' statement contains the first and only A natural within the A section of the Scherzo. This is a significant to note because of Foss's consistent use of the tritone interval in this symphony. This lack of emphasis upon the tritone thus far in this movement speaks to the tonal security of this Scherzo, especially when related to the second movement, where the tritone was an overtly stressed interval within the contrapuntal design. This emphasis upon the tritone that Foss has utilized in other movements will become a major feature by the end of this movement, however.

The second accompaniment pattern in the A section of the Scherzo is taken from the *klangfarbenmelodie*, as seen in mm. 4-6, 17-21 and 22-28. This accompaniment pattern is mainly discernable through its constant 8th note rhythm and disjunct registral leaps. In mm. 4-6, this accompaniment pattern in the clarinets and strings dovetails with the *klangfarbenmelodie* from mm. 1-4, making it hard to determine if it is a separate entity or an extension of the introduction (see Ex. 5.5).

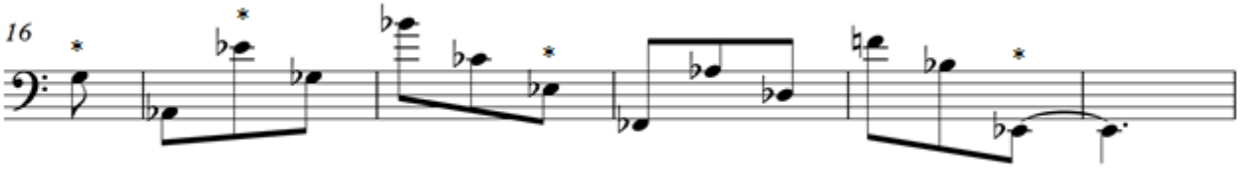
Example 5.5: *Movement 3, orchestral reduction, mm. 4-6*



Including the pitches from the chorale melody that begins on the last beat of m. 4, this collection is completely diatonic within Eb major. However, if you consider this as an extension of the *klangfarbenmelodie* introduction, that creates the set class (012345678T). The significance of this set will be discussed further, but this is the superset of all three *klangfarbenmelodie* statements.

A second example of this accompaniment pattern can be seen in the bassoon from mm. 16-21 (see Ex. 5.6). Not only does this contain similar properties to the *klangfarbenmelodie*, but with the exception of the starred notes is an exact repeat of mm. 1-4 in ordered pitch-class content. All the pitches from the introduction are retained, and with the additional starred pitches this creates the set (01234578T). Notice that the starred pitches are Eb and G, outlining an Eb major and emphasizing the tonic.

Example 5.6: *Movement 3, bassoon, mm. 16-21*



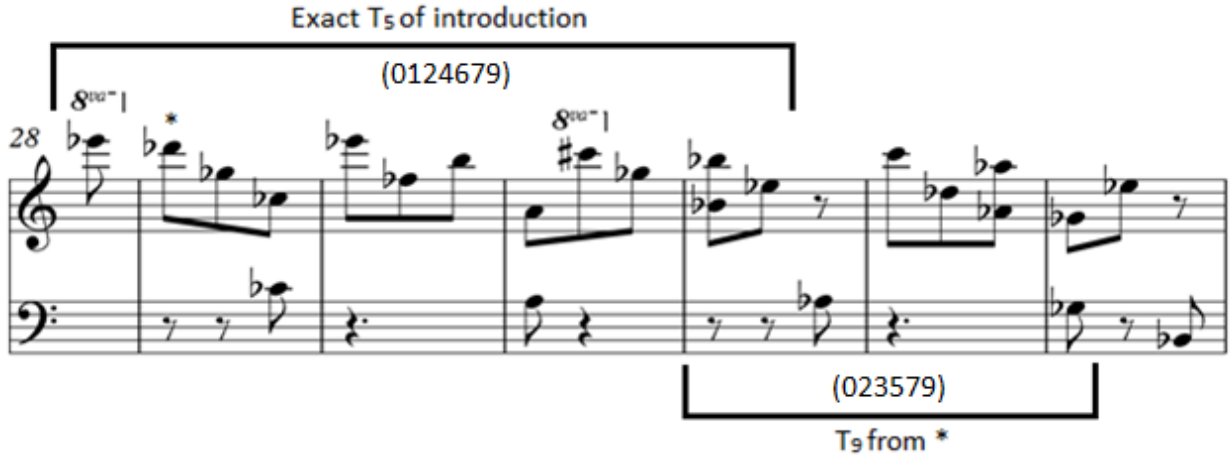
The final example of this accompaniment pattern from the A section occurs in the clarinet, bassoon and strings from mm. 22-28, leading to a cadence on Eb in m. 28. This example does not contain an exact or near-exact transposition of the *klangfarbenmelodie*, but retains the 8th note rhythm and disjunct leaps. This example represents the greatest chromatic expansion of the *klangfarbenmelodie* in the A section, and contains the prime form (012345789T).

So far in the A section of the Scherzo, Foss has moved from harmonically simple sets to more chromatically expanded sets. For example, the chorale melody makes up the set (013568), while the *klangfarbenmelodie* from mm. 1-4 makes up the set (0124679), which is expanded by

one semitone. Mm. 5-7 conform strictly to Eb major, while mm. 7-12 contain a mixture of Eb major and Bb Dorian (0123578T). In mm. 12-16, the flutes expand to the most distant pitch collection yet, WT1, and provide the only A natural to occur in this section. Mm. 16-21 represent another expansion of the *klangfarbenmelodie* (01234578T), and finally mm. 22-28 contain the most chromatically expanded set in this section (012345789T). So far in this movement, as in other movements, Foss seems to use the chorale melody in its most basic form first, before gradually chromatically expanding it beyond recognition.

In m. 28, the *klangfarbenmelodie* returns as a transition to the B section of the Scherzo. It begins as an exact T_5 transposition of the introduction, until m. 32, at which point there is a T^9 transposition of the T_5 transposition (see Ex. 5.7).

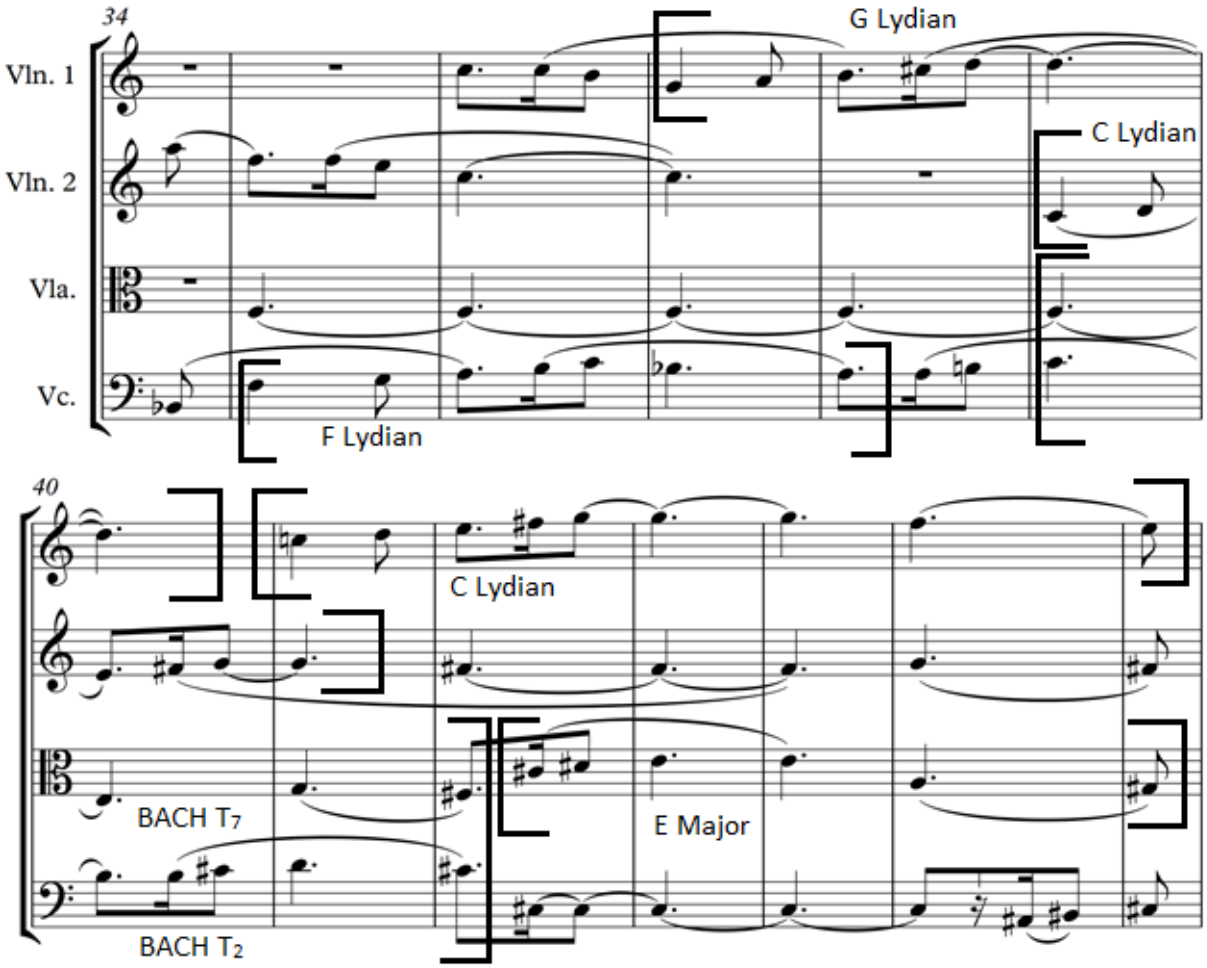
Example 5.7: *Movement 3, klangfarbenmelodie transition, orchestral reduction, mm. 28-34*



The T_5 transposition level would lead the listener to believe that the B section would occur at the subdominant level (Ab), since the introduction led to Eb, but this is not the case. As shown by the figure above, in m. 32 there is a shift to a T^2 transposition in relation to the original *klangfarbenmelodie*, which suggests F. Though only very briefly, the B section does begin in F.

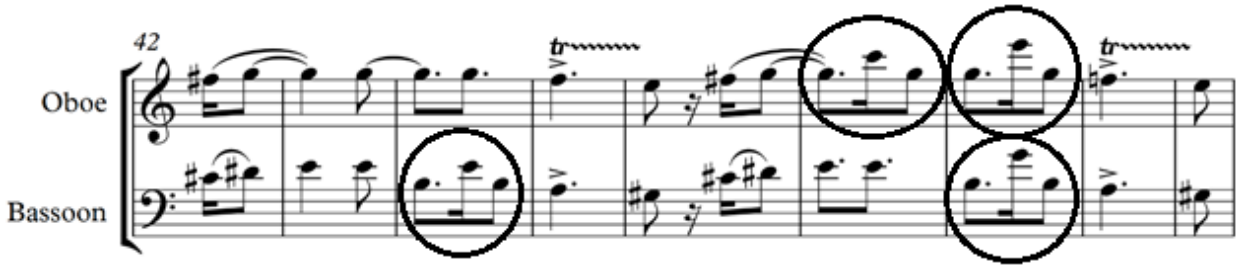
The B section starts much the same as the A section but is quickly differentiated. M. 34 begins a series of fragmented imitations of the mm. 5-8 chorale motive in the strings. Unlike the A section, each entry ascends in the Lydian mode, before lowering the $\hat{4}$ to the normal major version in the line's descent. This section is polytonal, stating these fragmented versions starting on the tonal centers F, G, and C. Notably, F is sustained in the bass by the violas from mm. 35-39, and acts as the tonal center until the end of m. 39. This broken up by the BACH motive at T_2 and T_7 in the viola and cello from m. 39-42, a reference to the importance of that motive in the second movement (see Ex. 5.8).

Example 5.8: *Movement 3, Scherzo B theme, strings, mm. 34-46*



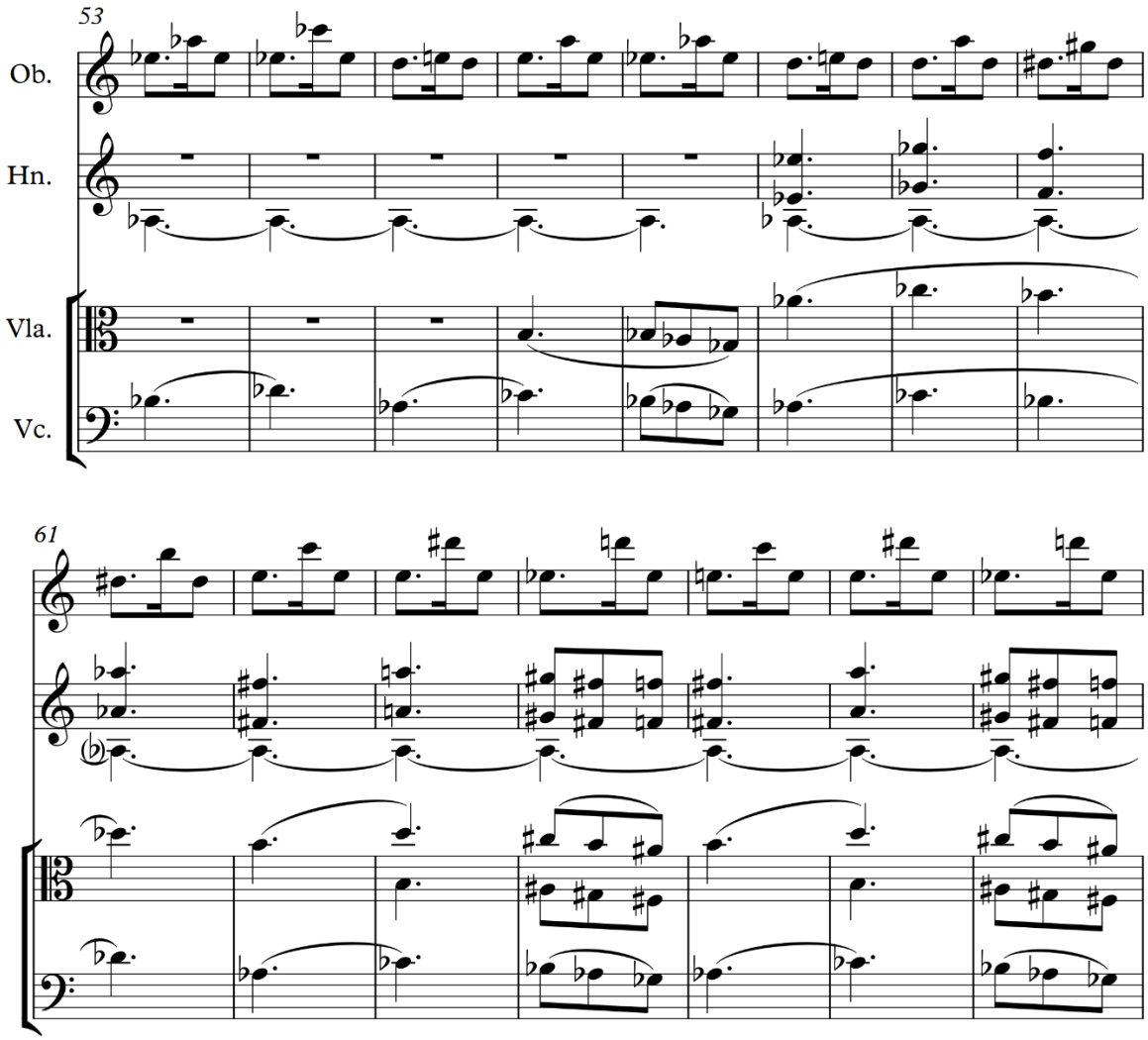
In m. 42, the double reeds begin to double the viola and 1st violin with a slight ornamentation. The double reeds also join the bimodal theme, with the oboe doubling the C Lydian theme in the 1st violins, while the bassoon carries a motive resembling the chorale motive in E major. This section from m. 42 on is marked by a fixation with the rhythmic pattern from the chorale motive from mm. 20-24 (see Ex. 5.2, pg. 76). The ornamentation in mm. 44 and 47-48 is taken from the turn figure in m. 22. The author has nicknamed this the "broken" motive, due to its repetitive nature in the following measures (see Ex. 5.9).

Example 5.9: *Movement 3, "broken" motive, oboe & bassoon, mm. 42-50*



In m. 53, a new motive begins in the solo cello, to be doubled by solo viola and horn in m. 58, and then doubled at the 3rd in divisi by those same instruments from mm. 62-67. The new motive in the horns and strings makes up the set [6,8,10,11,1,2] (013468). With the exception of the D, this set is a subset of the *klangfarbenmelodie* from mm. 1-4, minus E and F. With the exception of the D in the horns in mm. 63 and 66, the new motive along with the the Db drone in the horn suggests either Db Dorian or Db Mixolydian (see Ex. 5.10).

Example 5.10: *Movement 3, new motive, oboe, horn, viola & cello, mm. 53-67*

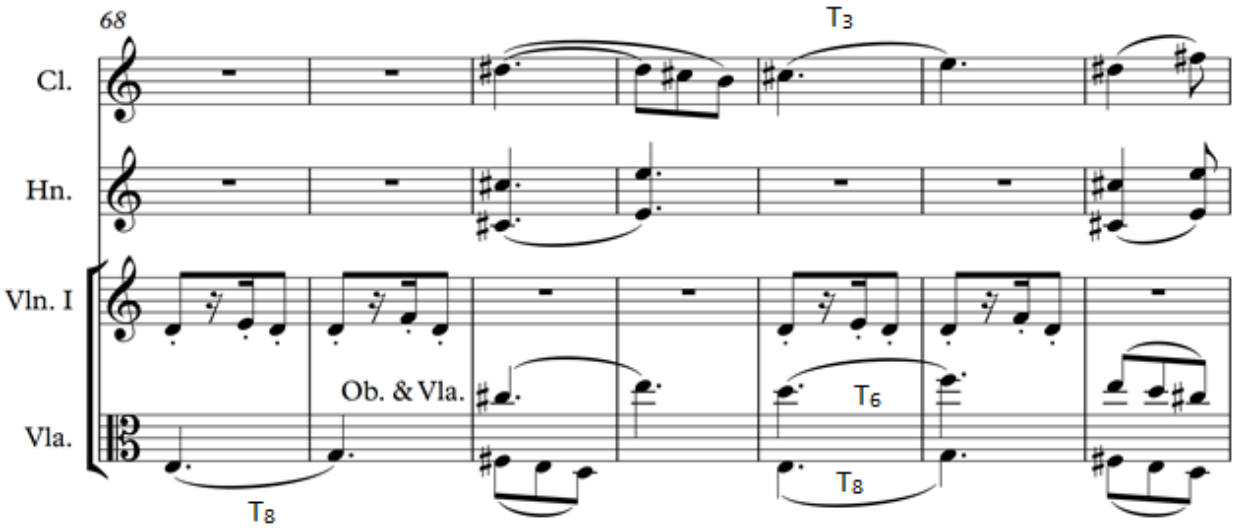


This new motive is accompanied by the "broken" motive in the oboe. The "broken" motive [8,9,11,0,2,3,4] (0124578) does not fit into a modal or tonal framework. Combining this set with the cello and horn set creates the superset (012345678T), which is the same superset that each appearance of the *klangfarbenmelodie* in the movement combines to form. This unifies this section with the pitch material of the A section.

In m. 68 the Db drone drops out, and the new motive is transposed in the violas at T_8, to be doubled from mm. 72-75 at T_6 by the first viola and oboe, and T_3 by the clarinets. The motive

is truncated from the previous section however, displacing the first rising third (mm. 53-54) to the horns in mm. 70-71 and rhythmically diminished in m. 74 (F#-A). The following example shows these motives along with a simplified version of the “broken” motive (see Ex. 5.11).

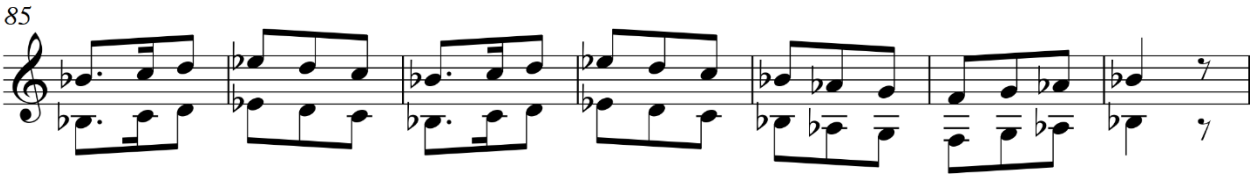
Example 5.11: *Movement 3, new motive (transpositions), cl., hrn., vln. 1 & vla., mm. 68-74*



In m. 77, these two motives break down completely and begin a six-measure transition into the A’ section of the Scherzo.

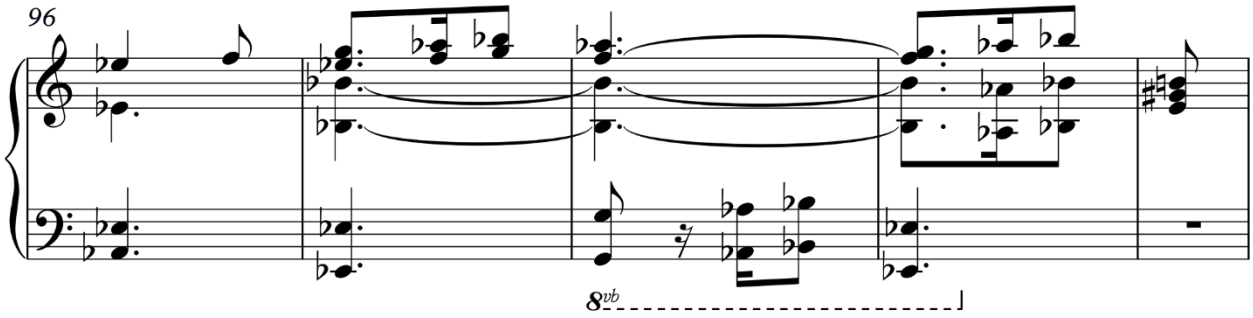
The A’ section begins in m. 84 in the tonic key of Eb, and is almost exactly the same as the A section from the beginning. The chorale melody begins as normal in m. 84, followed in m. 86 in the celli and bass by the Bb Dorian melody from m. 7. This is accompanied by a new idea from mm. 85-91, which is a simple Bb Mixolydian scale in the clarinets, trumpets, and trombones, leading to a cadence on Eb in m. 92 (see Ex. 5.12). All-together, these motives from mm. 84-91 spell out the familiar pitch class set (0123578T).

Example 5.12: *Movement 3, Bb Mixolydian idea, reduction, mm. 85-91*



On the last beat of mm. 91-95, the trumpets, trombones and violas carry the flute melody from m. 12 (see Ex. 5.4). The repetition of the accompaniment pattern from the A section ends here at the end of m. 95, and the chorale melody is left incomplete. In m. 100 there is a chromatic mediant modulation in which the tonic chord (Eb) of Eb ascends by half-step to the subdominant chord (E) of B (see Ex. 5.13). This leads directly into the Trio section of the movement.

Example 5.13: *Movement 3, chromatic mediant modulation, reduction, mm. 96-100*

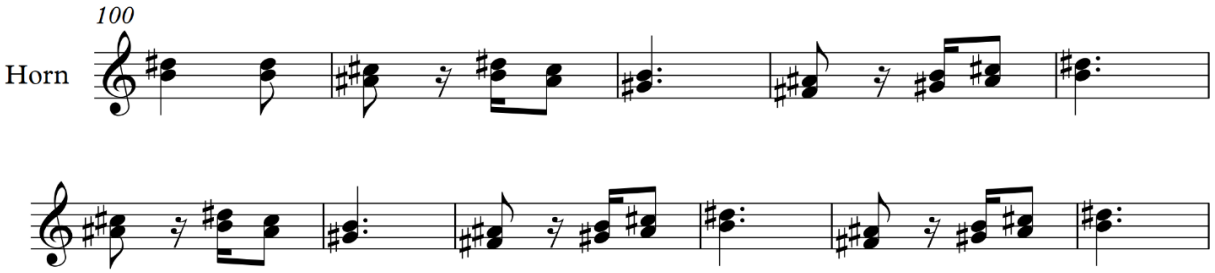


II. TRIO (B) SECTION

The Trio section picks up the chorale melody where it left off, despite the sudden modulation and difference in melody. There are three main sections in the Trio: mm. 100-111, mm. 112-136, and mm. 137-152. The first two sections remain fixated upon the rhythm and melodic contour of the melody from mm. 21-24. The third section finishes the remainder of the chorale from mm. 25-28 and retransitions into the repeat of the Scherzo. In the first section, the Trio theme is given in the horns in the key of B major, with slight imitation and accompaniment

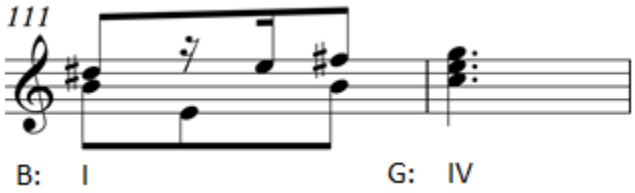
from the brass section, along with the bassoon and tenor sax (see Ex. 5.14). The texture in this section is extremely sparse in comparison to the Scherzo, without any of the strings or upper woodwinds.

Example 5.14: *Movement 3, trio theme, horn, mm. 100-110*



The Trio theme and its accompaniment in the first section forms the set (024579), which comprises a major scale without the leading tone. This mirrors that of the chorale (013568), which is a major scale without the $\hat{6}$. The transition into the second section of the Trio is accomplished in much the same way as the transition into the first section. The tonic chord of the current key (B) slides up by half step to the subdominant chord (C) of the new key (G) (see Ex. 5.15).

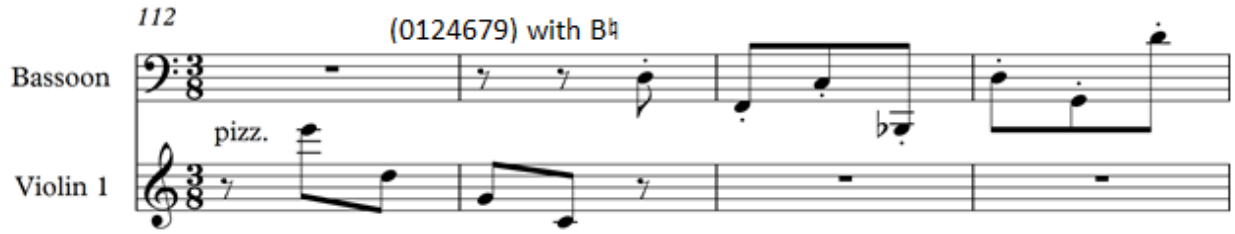
Example 5.15: *Movement 3, chromatic mediant modulation, reduction, mm. 111-112*



The second section begins in m. 112 in G major, with the Trio theme passed between the flutes and the trumpets. The first subdominant chord is always in the flutes as a dotted quarter note, instead of the quarter/eighth note rhythm from m. 100 of the first section (see Ex. 5.14), while

the more rhythmically active portion of the theme is in the trumpets. The texture thickens at the beginning of the section, with the addition of the string section, and a constant tambourine rhythm. There is a new accompaniment pattern in the 1st violins and 2nd bassoon that is repeated throughout this section, with some significance as it concerns important sets in the movement.

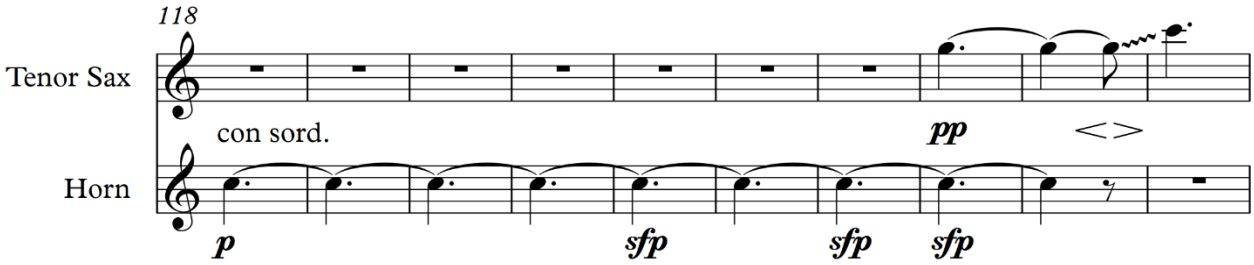
Example 5.16: *Movement 3, trio, bassoon & violin 1, mm. 112-115*



The pitch content from this set spells out G Dorian minus the $\hat{2}$, while the melody it is accompanying is clearly in the key of G major minus the $\hat{7}$. These two themes together make the set (0124679), which is the base set of the *klangfarbenmelodie*. This is further evidenced by the fact that the first four pitches occur in the same succession as the *klangfarbenmelodie*, and it has the same constant 8th note rhythm and disjunct octave leaps. This continues the theme of bimodality from the Scherzo into the Trio as well.

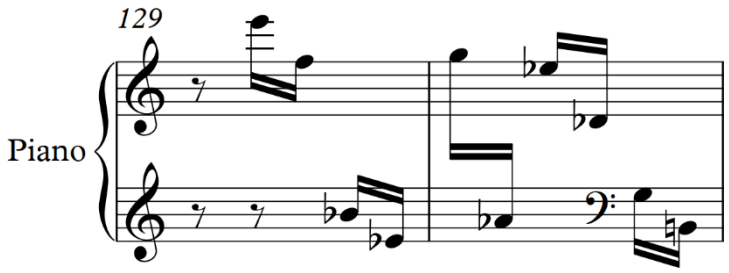
The accompaniment pattern continues in the same manner for the remainder of this section, with the exception of two passages. The first is a long, sustained F in the horns, which is taken over by the tenor sax and a glissando to Bb occurs (see Ex. 5.17).

Example 5.17: *Movement 3, trio, sax & horn, mm. 118-127*



This glissando emphasizes the two more strident pitches in this section, which in turn emphasizes the bimodality. In fact, when this recurs from mm. 129-132, the trumpets are forced to alter the B's of the Trio theme to Bb's, momentarily placing the Trio theme in G Dorian. The second accompaniment pattern is the most chromatic passage of the entire section, and adds every pitch except F# to the collection for this section, introducing the pitches Eb, Ab, and Db (see Ex. 5.18). This passage appears to be a rhythmically augmented and chromatically expanded version of the motive from the violins and bassoons in m. 112 (see Ex. 5.16, pg. 87). It employs the same disjunct motion, constant subdivided rhythm, and displays a similar but chromatically expanded version of the *klangfarbenmelodie* set (0124578T).

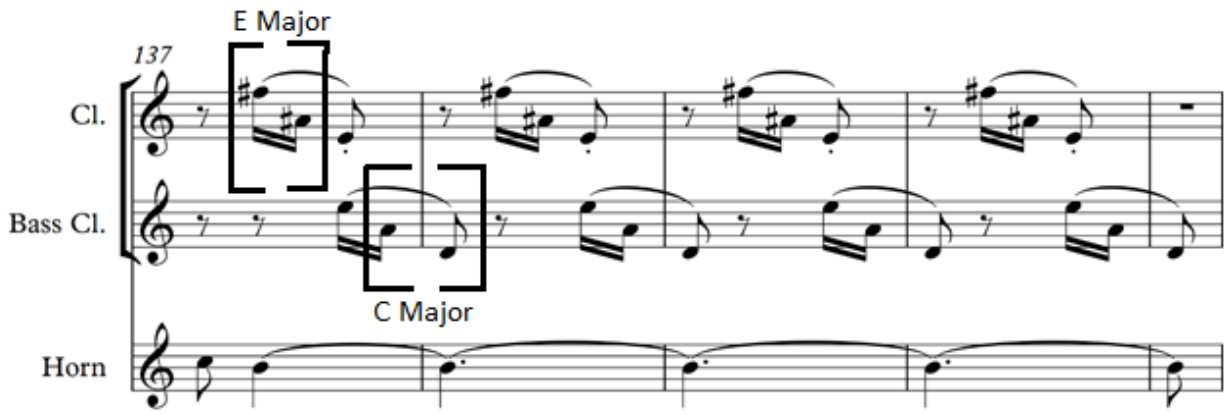
Example 5.18: *Movement 3, piano, mm. 129-130*



In m. 133, the sustained F from mm. 118 and 129 (see Ex. 5.17) is taken up in the violins and violas, taken up to D at the end of m. 134, which falls to F again in m. 136, and then down a semitone to E at the beginning of the third section in m. 137.

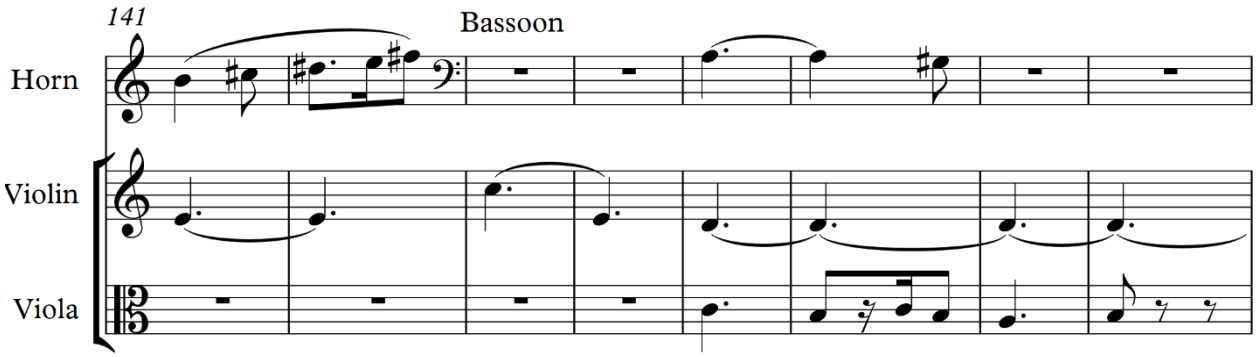
There is some tonal ambiguity built into this transition into the third section of the Trio beginning in m. 137, since the F to E falling motion under a G Major chord could functionally be resolved to a C major. More likely, Foss could continue the falling 3rd mediant modulation pattern and descend to E major. Foss takes advantage of this ambiguity from mm. 137-140, giving both resolute harmonies (see Ex. 5.19).

Example 5.19: *Movement 3, clarinets & horn, mm. 137-141*



The held E (horn) leads to a statement of the first two bars of the chorale melody in the key of E major in m. 141, which is interrupted by the strings, and the next two bars of the chorale are finished by the bassoon from mm. 145-146 (see Ex. 5.20). In fact, the horn and bassoon in these measures remain within the E major collection without $\hat{7}$, while the upper strings in these measures very distinctly seem to be in C major.

Example 5.20: *Movement 3, horn, bassoon, violin & viola, mm. 141-148*

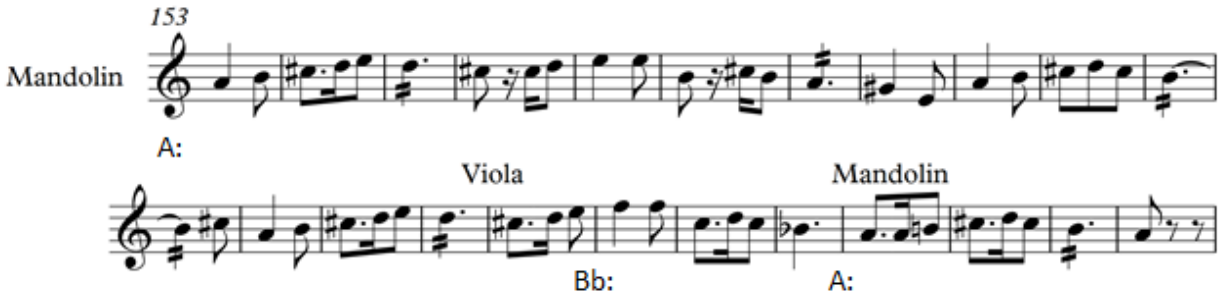


The prime form for this third section is (01235678T), which speaks to its bitonal nature, and leads to another interesting modulation into the return of the Scherzo. The two contrasting tonal centers, E and C, both connect to the Scherzo in the key of A in ways that Foss utilized during the Trio. The sections in E fulfill a dominant function in the key of A, which can be seen by the falling D-C# in the horn from mm. 149-153. Simultaneously, the movement from the key of C to the key of A fulfills the descending mediant relationship that Foss has utilized for the entirety of the movement thus far. This tonal ambiguity gives the modulation to the key of A in m. 153 a sense of resolution, while still sounding slightly unconventional.

III. SCHERZO (A') SECTION

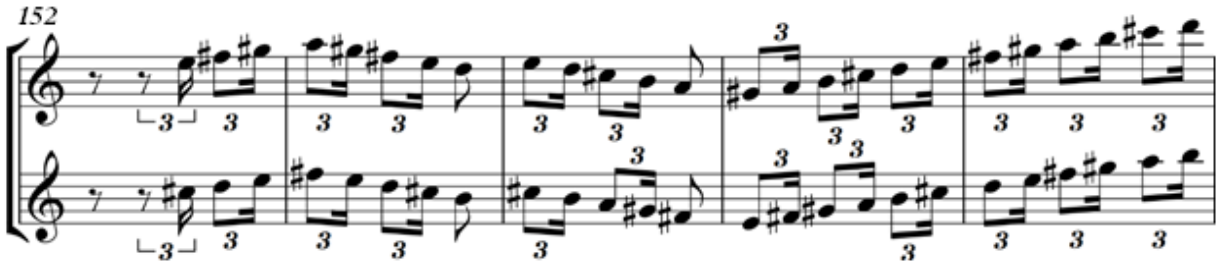
The Scherzo returns in the key of A major, which is a tritone away from the initial key of Eb major. This is a way that Foss stresses the tritone interval in a movement that is generally rather free from the harmonic use of the tritone. The chorale theme now appears in the mandolin, with a brief interruption and modulation to Bb from mm. 169-172, before returning to A in m. 172 (see Ex. 5.21). In this complete statement of the chorale, notice that mm. 157 and 169 return to the rhythm from the cover of the score, differing from mm. 9 and 21.

Example 5.21: *Movement 3, 2nd scherzo theme, mandolin, mm. 153-175*



A new accompaniment theme is given in the 1st violins, which are split in divisi and doubled at the third (see Ex. 5.22). This theme outlines the scale of A major from mm. 152-159, and shifts to E major from mm. 160-164.

Example 5.22: *Movement 3, accompaniment theme, 1st violin, mm. 152-156*

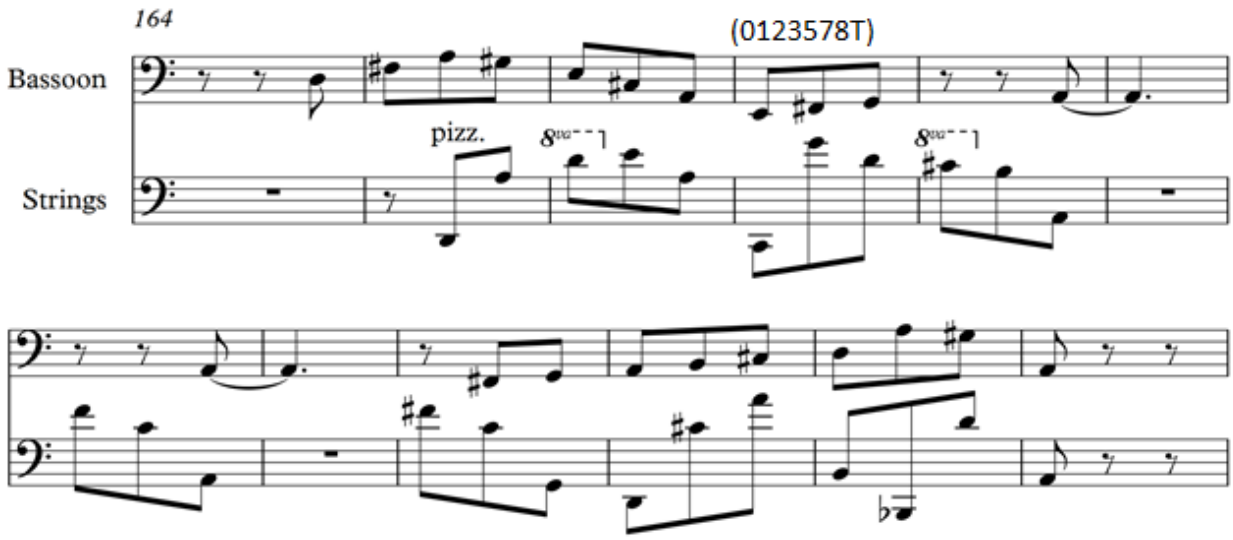


This provides the only real accompaniment until m. 162, making the prime form for mm. 153-162 (0123578T), the combination of A and E major.

A shortened version of flute theme from m. 12 is heard in m. 172, in the expected transposition, foregoing the whole tone scale of the first three measures. Then from the last beat of mm. 164-175 the *klangfarbenmelodie* accompaniment pattern returns, though this is mainly discernable through the 8th note rhythm and disjunct registral leaps in the strings (see Ex. 5.23, pg. 92). The bassoon makes the set (0123578T), which is an A major scale with an added b$\hat{7}$, which seems to be the consistent with the various Mixolydian modal accompaniment ideas

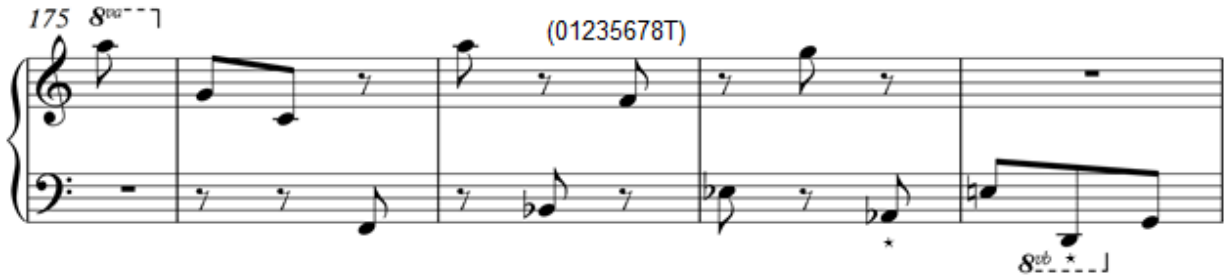
within this movement. The lower strings contain a more expanded harmonic vocabulary, and between the two every pitch except for Eb (the tritone) is present, again speaking to the tonal stability of the majority of each A section.

Example 5.23: *Movement 3, bassoon & string reduction, mm. 164-169*



This leads to a transition from mm. 175-179, which contains a restatement of the *klangfarbenmelodie* (see Ex. 5.24). Aside from the two starred pitches, the *klangfarbenmelodie* is a T_{11} transposition of the introduction statement. It is also a T_6 transposition of the statement in m. 28, which is significant due to the unusual repetition of the Scherzo thus far at the tritone interval, as opposed to the tonic.

Example 5.24: *Movement 3, klangfarbenmelodie transition, reduction, mm. 175-179*



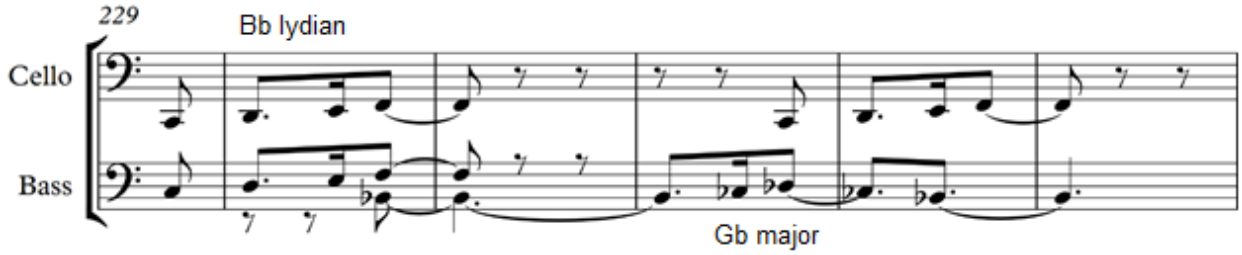
Though there is no true tonal center, this *klangfarbenmelodie* is similar in pitch-content to F major, with an added b$\hat{7}$ and b$\hat{3}$, which plays into the ambiguity between Dorian and Mixolydian modes from previous sections in the piece. The b$\hat{3}$ causes a chromatic expansion of the earlier *klangfarbenmelodie* sets, creating the set class (01235678T).

The second B section of the scherzo begins in the key of D in m. 179, though it quickly changes tonality. In m. 182, instead of descending to the E Lydian mode (T_2) as in m. 37, the 1st violins join in A Lydian, skipping over E Lydian entirely. In m. 184 the BACH motive is heard in the cello and 2nd violin, in their correct transpositions in relation to the first B section. Whereas m. 32 turns to focus on the dominant Lydian mode, in m. 186 the 1st violins turn back to the tonic Lydian mode (D), at this point moving the transposition level to T_2 in relation to the 1st Scherzo. Therefore, when the flute (replacing the oboe from the 1st section) and bassoon enter in m. 187, they are in D Lydian (descending major) and F# major, respectively (see Ex. 5.9, pg. 82). The clarinets have a brief B Lydian statement in m. 192, which is essentially a preface of the tonality given in the 1st violin ending from mm. 195-197, where there is a turn from D Lydian to B major.

The entirety of mm. 198-222 is a nearly exact repeat of its counterpart from the first B section, at a T_2 transposition level. This puts the piece back in its original tonic, Eb, though modally different from the clear Eb major of the A section's chorale melody. This section is in an ambiguous Eb Dorian/Mixolydian, with the broken motive in the flute, also transposed up a major 2nd from the first Scherzo. This is followed by a transitional section from mm. 223-229 which is comparable to that from mm. 78-83.

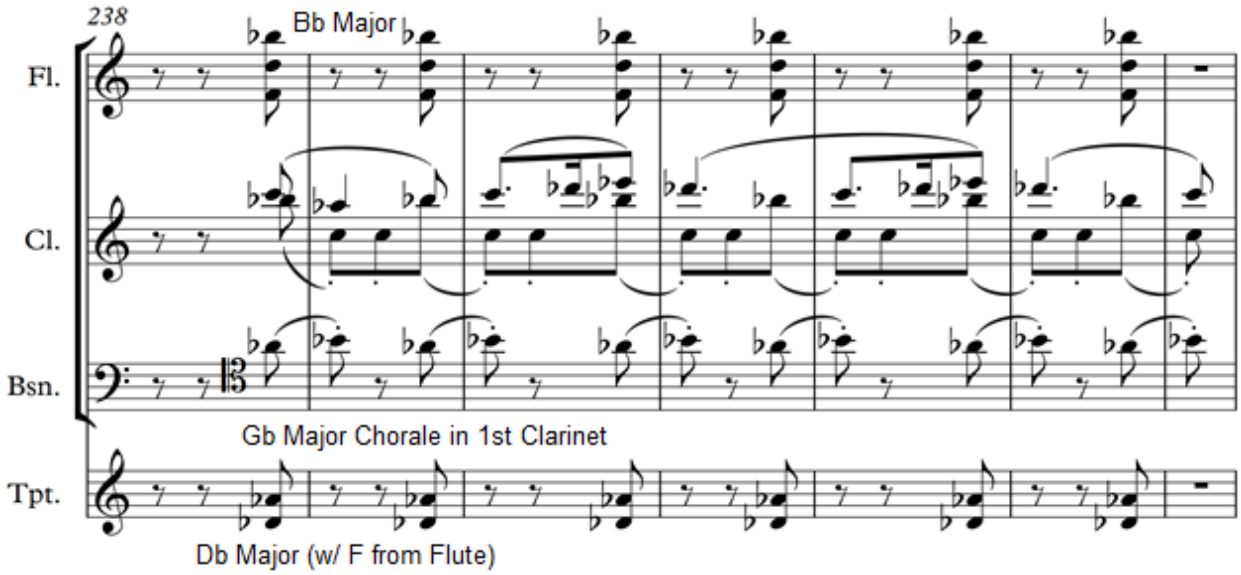
The final A' section of the second scherzo returns in m. 229, though this repeat is characterized by a "broken" quality, and an inability to get more than four bars into the theme. In m. 229, the celli and 1st contrabass carry the 2nd and 3rd measure of the chorale theme in Bb Lydian, which would not be unlike the previous B section (see Ex. 5.250. This is repeated in the celli in m. 232, while the 2nd bass carries the same theme, but apparently in Gb major instead of Bb Lydian. This Gb portion finishes the the 3rd full measure of the chorale theme.

Example 5.25: *Movement 3, cello and bass, mm. 229-234*



In m. 238, the same four measures of the theme are given to the 1st clarinets, and accompanied by trumpet, bassoon, and flutes (see Ex. 5.26).

Example 5.26: *Movement 3, flute, clarinet, bassoon & trumpet, mm. 238-244*

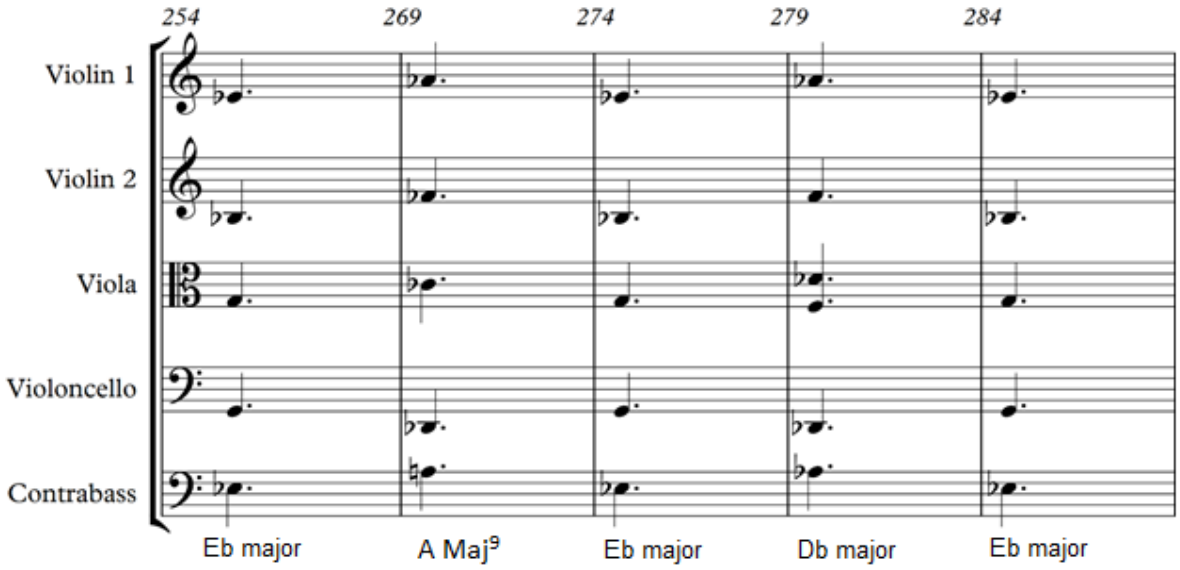


The bitonal mixture from the previous section continues, with the chorale melody in Gb major, while Db and Bb major chords occur simultaneously in the trumpets and flutes. Though this time the chorale melody proceeds one extra bar, it is still left incomplete. The melody is once more stated in Gb in the 1st horns in m. 246, to be doubled at the lower 3rd in a completely diatonic fashion, giving this attempt the most stability compared to the prior two attempts. Though the flutes, celesta and bass section carry non-diatonic tones, these resolve by semi-tone to the 3rd related key Eb, which is the first chord of the coda.

IV. CODA

The coda begins in m. 254, and mainly consists of two important items. The first is a set of held chords in the string section, which add a lush quality to the texture that has not heretofore occurred in this movement. The strings begin by stating a root position Eb major chord. This is transformed into the chord seen in m. 269, which is an enharmonic spelling of an A major 9th chord with the third in the bass. The Eb major chord recurs in the same voicing in m. 274, to be interrupted once again, but this time by a Db major chord in root position, before resolving back to the Eb major chord in m. 284 (see Fig. 5.3).

Figure 5.3: *Movement 3, coda chords, mm. 254-295*

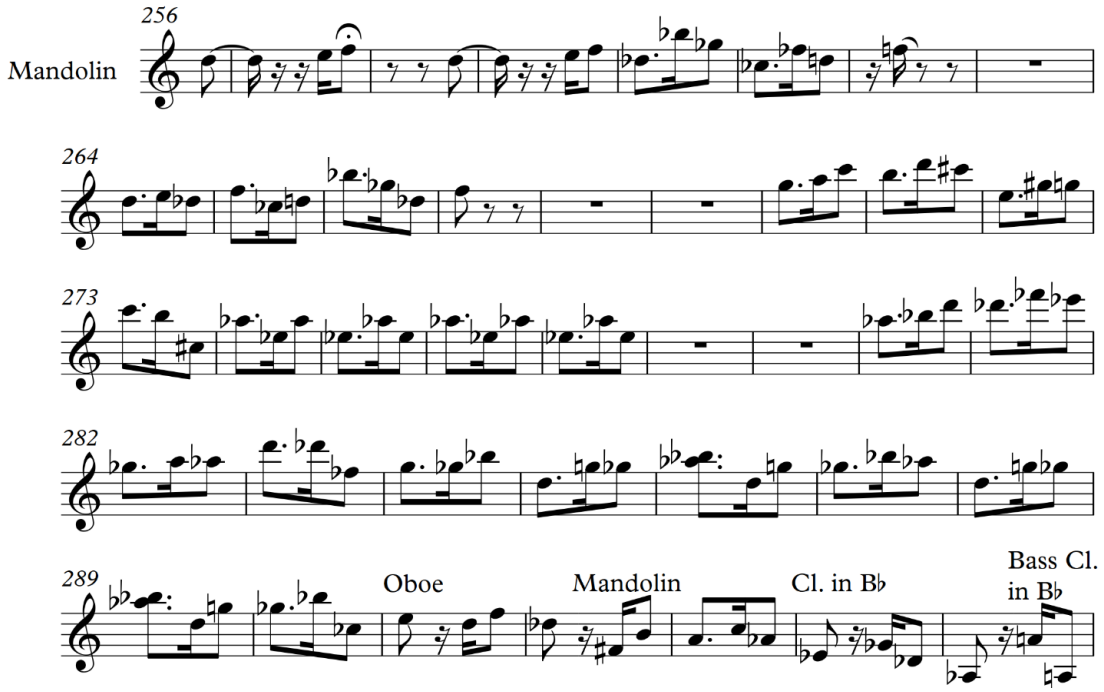


These chords seem to have the effect of a large-scale structure throughout the piece being written into a specific section of the piece. The Eb chords represent the tonic, and the A Maj^9 in first inversion represents the tritonic interruption that occurred with the repeat of the Scherzo. The next Eb represents the return to the tonic, and the Db potentially represents the A Maj^9 as it should have occurred, as is consistent with the modal mixture of the movement beginning with the b$\hat{7}$ of the *klangfarbenmelodie* and ranging through the polymodal statements that occur throughout the Scherzo and the Trio. The final Eb represents the return to tonic at the conclusion of the piece, but the "broken" motive accompanying it seems to imply that it is not so simple.

The last item of note in the coda is the return of the "broken" motive, in the mandolin, which Foss specifically instructs should be backstage for this section (see Ex. 5.27). This distance

creates the sense of a melody “poorly remembered” from a distant place or time, as Foss would later come to say about his improvisational work in the late ‘50’s.[58]

Example 5.27: *Movement 3, coda theme ("broken" motive), mandolin, mm. 256-295*



In this section, Foss has used the same rhythmic figure as the “broken” motive, but this time the melodic sequence is even more fragmented and irregular, and the final pitch of each 3-note pair is different from the first pitch. The easiest way to group this section is according to the chord changes in the strings, and then start a new section when the melody begins to be passed between the mandolin and the woodwinds in m. 291. Since there are five chord changes, this creates six distinct sections.

[58] Grimes, Interview with Lukas Foss, 22.

Table 5.2: *Movement 3, chart of coda chords*

Measure #	Prime Form	Normal Form	Chord in Strings
mm. 256-267	(0124578)	[10,11,1,2,4,5,6]	Eb
mm. 270-274	(01245679)	[7,8,9,11,0,1,2,4]	A maj^9 / C#
mm. 275-277	(05)	[3,8]	Eb
mm. 280-283	(01235789)	[1,2,3,4,6,8,9,10]	Db
mm. 284-290	(012458)	[6,7,8,10,11,2]	Eb
mm. 291-295	N/A	N/A	Eb

The first section from mm. 256-267 maintains a T^2 relationship with the pitch-class content of the broken motive from mm. 53-67 and contains the exact same pitch-class content as the broken motive from mm. 198-212. This is consistent with the tonal centers of these three sections, which is Db in mm. 53-67, and Eb in the latter two, explaining the transposition levels. The A maj^9/C# is primarily representative of the pitch content from mm. 270-274, representing an expansion of the previous set. There is one final expansion from mm. 280-283, before a return to a subset of the original set from mm. 284-290. This set (mm. 284-290) has a repetitive pattern of the ordered pitch-class set [2,7,6,10,8], which primarily contains diatonic pitch-classes in Eb major. This is omitting the pitch-class [11], which only appears once on the last 8^{th} note of m. 290, breaking the previously mentioned pattern.

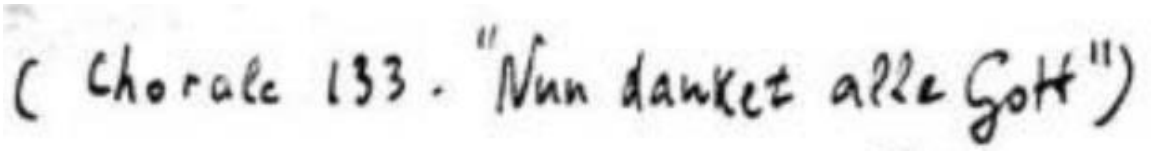
From mm. 291-295 the broken motive is passed between the oboe, mandolin, flute and clarinet section, before coming to rest in m. 296 on the chorale melody from the A section of the scherzo, in the key of Eb. This lasts for two bars, and a plagal cadence closes out the movement from mm. 299-302. The final Eb sounds in m. 300, while the mandolin plays a tremolo on an F three-octaves above the bass, creating an implied major 9^{th} chord.

This third movement is the simplest in its use of motivic material to be found in this symphony. It is the first movement in which the motivic material of a secondary section (in this case the Trio) is also a direct quotation from the Bach chorale harmonization. Another interesting feature of this movement is that it is the only movement in which the chorale theme is given in a “broken” state at the end of the movement. For instance, though the coda uses fairly consonant chords, it ends with the “broken” motive, which represents a breaking down of the chorale motive. In each of the other movements, the final section represents a reconciliation of any tension that was present, while this movement preserves that tension within the coda.

Chapter 6: Movement 4

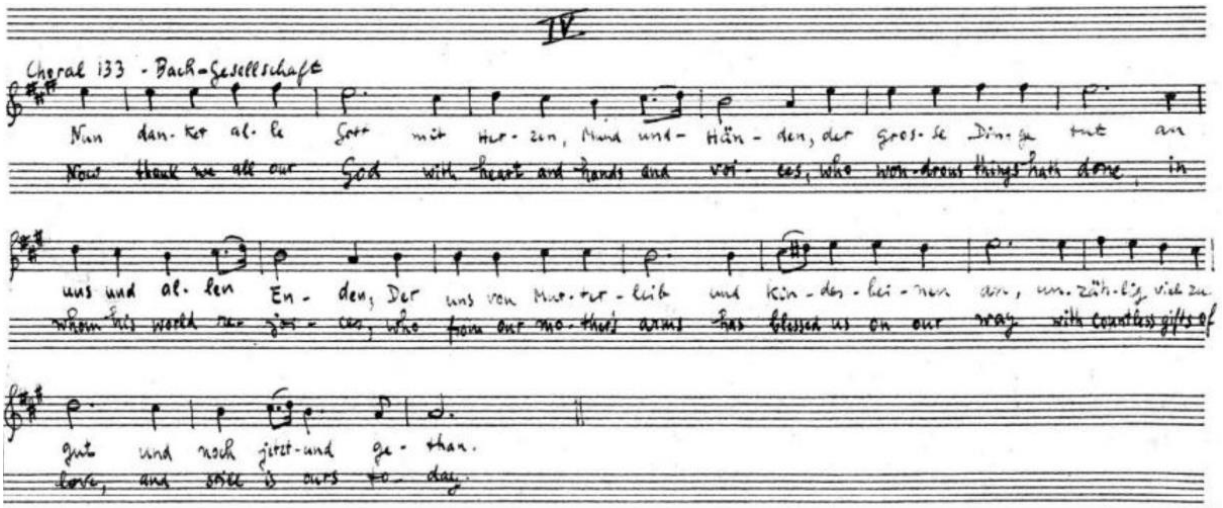
The fourth movement of the *Symphony of Chorales*, titled *Introduzione* (𝅗𝅥 = 72), is akin to the Baroque Ritornello form, with a main "ritornello" theme given, and various soloistic episodes intervening.[59] Substituting for the more typical fourth movement rondo form in the German symphonic tradition, this form fits the nature of the chorale source material and continues the precedent set in the second movement of using Baroque formal procedures. At the top of the score for this movement, Foss writes the following subtitle (see Fig. 6.1):

Figure 6.1: *Movement 4, chorale citation*



The listing of a single chorale is consistent with the first and third movements, differing from the abnormal listing of two chorales and an additional motive in the second movement (see Fig 6.2).

Figure 6.2: *Movement 4, Chorale No. 133 melody*



[59] Caplin, *Analyzing Classical Form: An Approach for the Classroom*, 672.

The form of this movement is an atypical ritornello form (see Table 6.1).

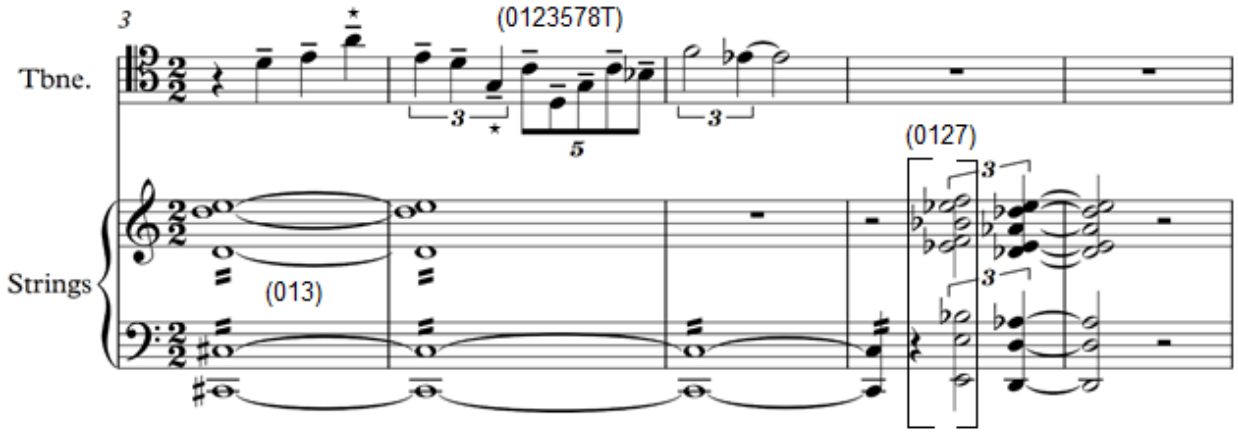
Table 6.1: *Movement 4, Table of formal design*

Section	Subsection	Measures	Tonal Center	Remarks
INTRODUCTION		1-64		Remembrances of mvmt. 1
Ritornello		65-94	A	Chorale tune
Episode 1		95-145	Db-Bb-Gb-Bb-F-E (dominant)	New melody
Ritornello		146-171	A	
Episode 2		172-273		
	Section 1	172-222	A-Bb-B-F-A-Bb-E-Bb-B-F-Gb	Developmental, shifting tonal centers
	Section 2	223-273	B-F#-C-Db-Ab	New melodies
Ritornello		274-286	Db	Chorale tune abbreviated
Episode 3		287-343		
	Section 1	287-320	A-C#-G#-B-Ab	Remembrances of previous movements
	Section 2 (Ritornello)	321-343	E-B-E	Chorale tune, dramatically changed
Episode 4		344-440		
	Section 1	344-381	F-F#-G-Db-F-Db-D-Bb	Episode 2 at T_8 transposition
	Section 2	382-440	G-A-Ab-Eb-E-A	1^{st} melody from Episode 2
Ritornello	(Incomplete)	441-459	A	Incomplete and fragmented
Codetta		460-471	A	Building, w/ flute motive from initial ritornello

I. INTRODUCTION

This fourth movement features a 64-measure introduction that introduces an explicitly cyclical element into the symphony.[60] This introduction presents the following thematic material from movement one: the closing theme from group two of the exposition, the chorale theme from the development, and later appearances of the flighty motive and chromatic string themes from the development. The introduction begins with a tone cluster forming the (013) pitch class set in m. 1, and the closing theme from theme group 2 (movement 1) beginning in m. 3 (see Ex. 6.1). With only two alterations in this closing theme (starred), these opening measures are at a T_9 transposition level to m. 195 from the first movement (see Ex. 3.21, pg. 40). The alterations are made to avoid the tritone interval, which makes the first 7 pitches of this theme exactly the same as group 2 theme 1 (see Ex. 3.19, pg. 38).

Example 6.1: *Movement 4, closing theme (movement 1), trbn. & string reduction, mm. 3-7*

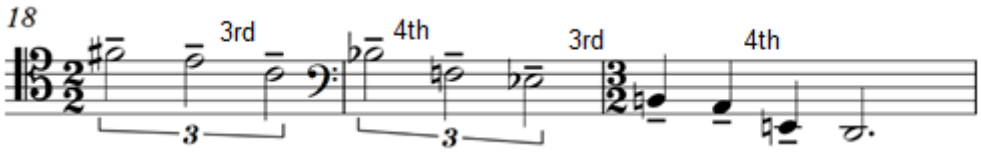


The falling 2nd motive from movement 1 is seen in mm. 5 & 6-7, taking on the chromatically stacked character from the second half of the development of movement 1 in mm. 6-7 (see Ex.

[60] Hugh Macdonald. "Cyclic Form." *Grove Music Online. Oxford Music Online*. Oxford University Press.

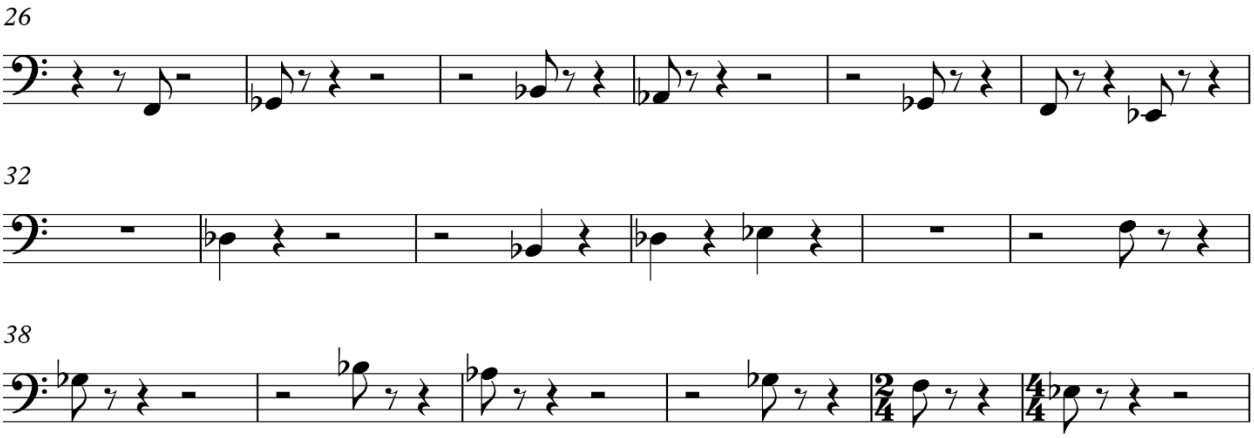
3.25, pg. 44). This figure recurs from mm. 9-13 and is transposed up by a half step from mm. 15-16, just as in movement 1. These alternating falling 2nd motives recur once more from mm. 16-18, leading directly to the descending sequence from mm. 205-207 of movement 1 (see Ex. 3.21, pg. 40), again at a T_9 transposition level (see Ex. 6.2).

Example 6.2: *Movement 4, descending sequence, lower brass reduction, mm. 18-20*



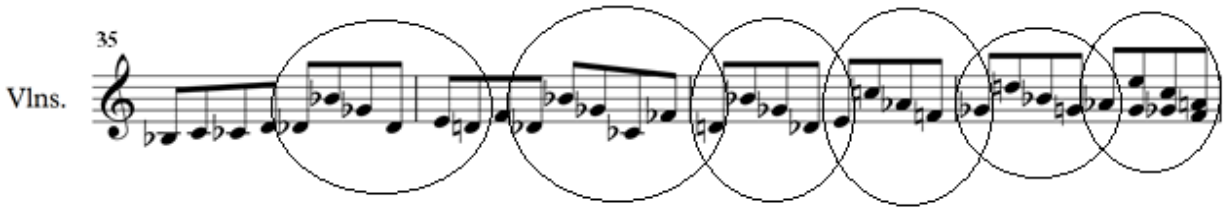
A pedal point on Eb begins in m. 21, which leads to the appearance of fragmented versions of the chorale theme from movement 1 in the bass voices from mm. 26-44 (see Ex. 6.3).

Example 6.3: *Movement 4, chorale theme (movement 1), orchestral reduction, mm. 26-44*



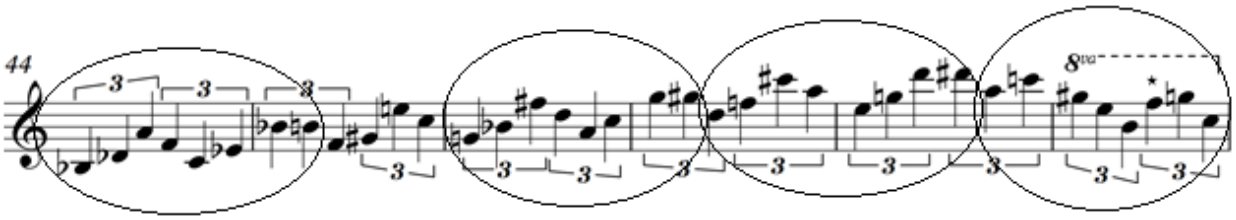
This is accompanied by incomplete statements of the "flighty" motive centered around the pitch class Eb in the strings and winds. These statements begin as the simple wedge-shape statements from mm. 21-26, becoming more chromatically expanded until they begin to sequence from m. 35-38 (see Ex. 6.4). This sequence creates the pitch class set (01234578T), which is a superset of the "flighty" motive, and the same set as the string motive from the development.

Example 6.4: *Movement 4, violin sequence, mm. 35-38*



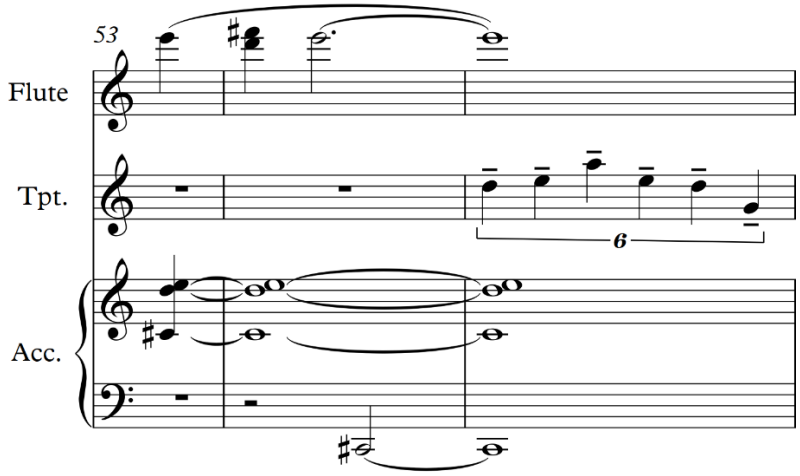
There is another sequence in the violins and clarinets from mm. 44-49, which leads back to the closing theme from movement 1 in m. 50. This string sequence is derived from the second half of the development (movement 1), specifically from mm. 273-275 and mm. 282-284. This sequence begins with a rising minor third, which rises to a falling 2nd-inversion chord related by 5th. This last pitch of the falling 2nd-inversion becomes the rising minor third in the next sequence, which in turn rises to another falling 2nd-inversion chord related by 5th (see Ex. 6.5).

Example 6.5: *Movement 4, string sequence, mm. 44-49*



This sequence runs directly into another statement of the closing theme from mm. 50-52, once again accompanied by the (013) pitch class set from the opening. This is interrupted in mm. 53-55 by a small fragment of the main theme for movement 4 (see Ex. 6.6).

Example 6.6: *Movement 4, closing theme interruption, flute, fl., tpt. & accomp., mm. 53-55*

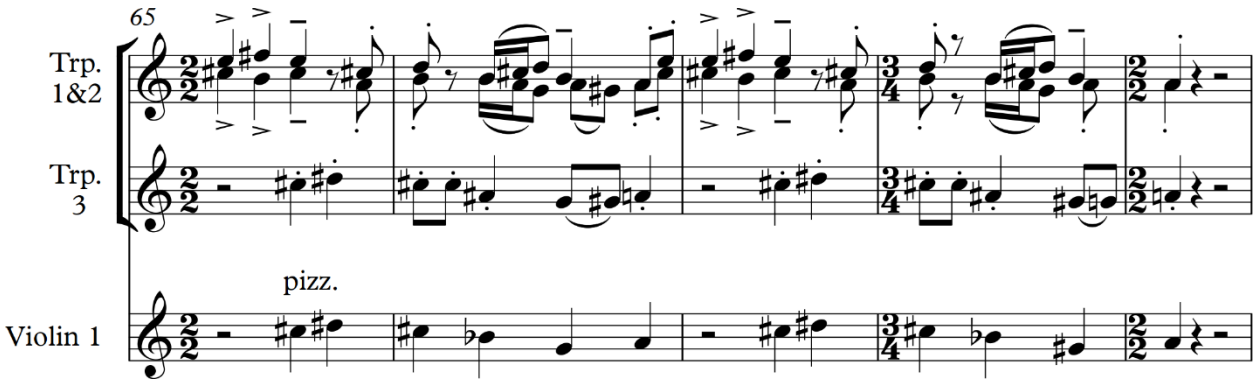


The closing theme establishes dominance again from mm. 58-60, before another interruption from mm. 60-64, leading directly into the ritornello theme for movement 4.

II. FIRST RITORNELLO

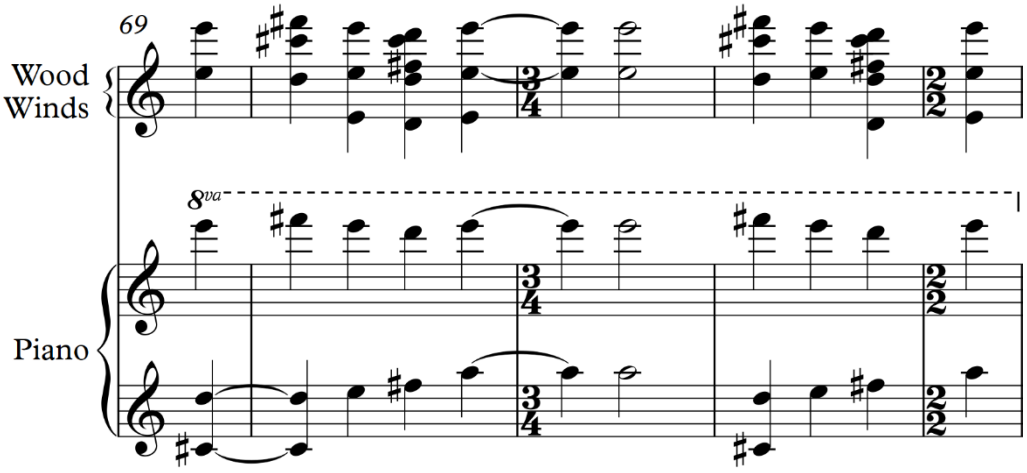
The ritornello theme is Foss's rendering of Bach's Chorale No. 133 harmonization. It is made primarily of three different elements, which appear individually and at times together, in a specific orchestration that will continue to recur when the main ritornello returns throughout the movement. The first element, first seen in m. 65, is a four-bar melody in the trumpet taken from the first eight bars of Bach's harmonization. This melody in the first trumpets is always accompanied by the second and third trumpets, which feature consistent use of contrapuntal devices such as inversion and chromatic imitation (see Ex. 6.7). The trumpet accompaniment changes slightly throughout the course of the movement, frequently adding "wrong" notes in otherwise tonal sections. For instance, the D# is given in the 3rd trumpet part frequently, and the G and G# are interchanged frequently, almost incidentally. Though the accompaniment is quite chromatic, this gives the theme a light and playful feeling.

Example 6.7: *Movement 4, ritornello, trumpet theme, trumpet & violin 1, mm. 65-69*



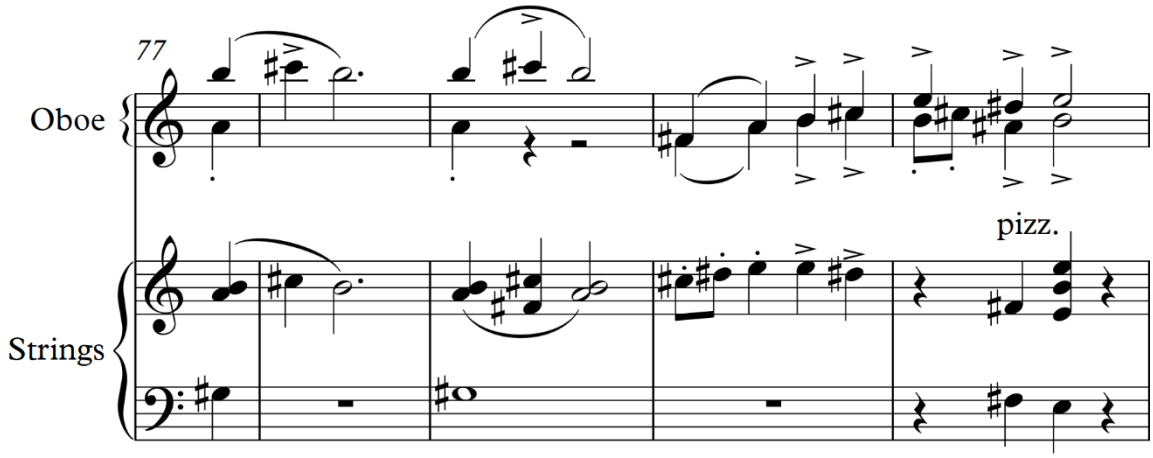
The second element is a familiar one, as it was encountered briefly as an interruption in the introduction. It will occur in the upper woodwinds, in the horns, in the pitched percussion instruments (glockenspiel, chimes, harp & piano), and in the pizzicato strings (see Ex. 6.8). Though the upper neighbor (E-F#-E) motion is also present in the trumpet theme, unlike the trumpet melody this theme itself is a derivation of the chorale melody, not an actual quotation of the chorale. The primary held accompaniment in the horns and in the strings (C#-D-E) comprises the (013) set from the introduction.

Example 6.8: *Movement 4, ritornello, woodwind theme, mm. 69-73*



The trumpet theme returns from mm. 73-76, leading to the final element of the ritornello from mm. 77-81. This element is taken from mm. 9-12 in Bach's Chorale No. 133 harmonization (see Appendix A), which is the section with the short modulation to the Dominant tonal area. The melody begins in the oboe in m. 77 and is given to the violins and harp in m. 80 (see Ex. 6.9).

Example 6.9: *Movement 4, ritornello, oboe & string theme, mm. 77-81*



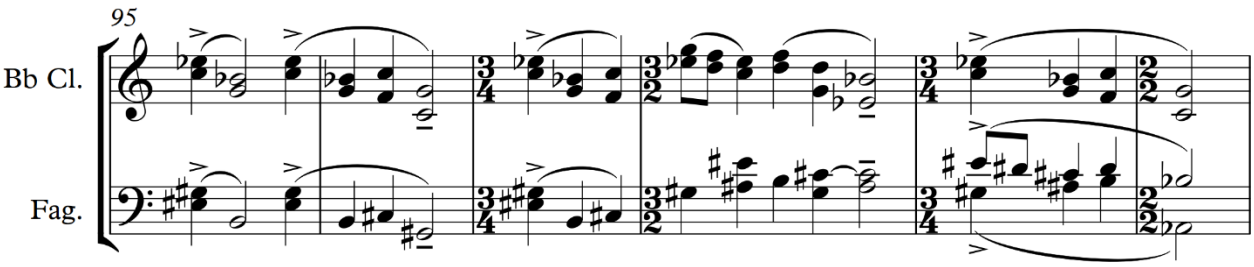
This theme also stresses the (013) set at the downbeats of mm. 77 and 79, but at a T_7 transposition (G#-A-B), which correlates with Chorale No. 133's dominant cadence in m. 8 (see Appendix A). The trumpet theme returns in the original key from mm. 83-87, followed by the woodwind theme from mm. 88-90, and a combination of the two from mm. 90-94. This leads to a cadence on an Amaj7 in m. 94 to close the first ritornello section.

III. EPISODE 1

The first episode begins in m. 95, and primarily develops two new motives. The texture is sparse, essentially utilizing only a string and woodwind choir until m. 141. Not only is this passage free of the brass section, but there are no tutti moments until m. 141, creating a disparate gap in texture between the ritornello and the episode. This episode is highly developmental and

modulatory, focusing on only two primary motives throughout, with a total of six different tonal centers. Each theme is generally given in duos or trios, which contrasts with the main tutti theme. This is a standard feature of ritornello form, which generally gives the ritornello as a tutti theme, and gives the intervening episodes in solos, or small duos or trios.

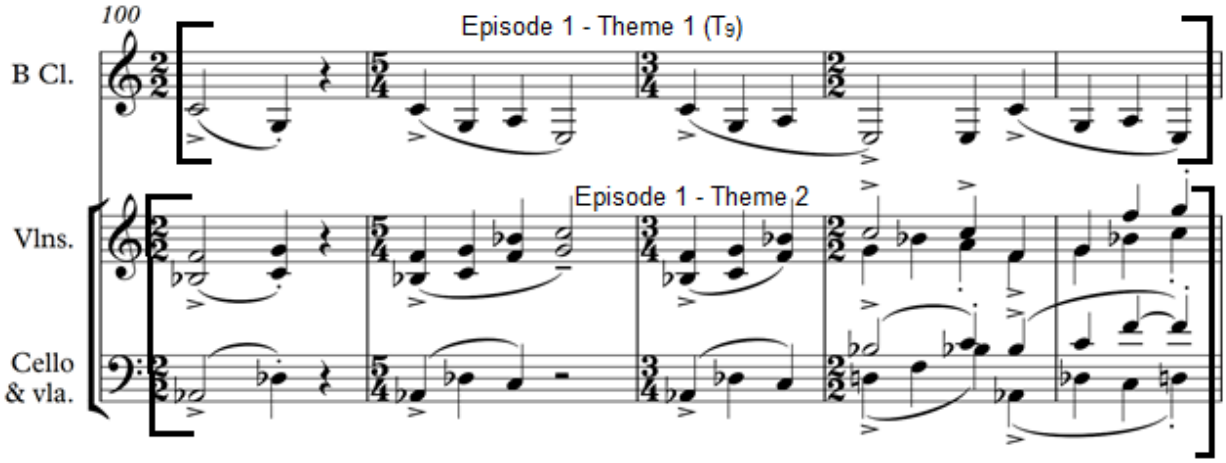
Example 6.10: *Movement 4, Episode 1 theme 1, clarinet & bassoon, mm. 95-100*



The primary melody is heard in the 1st clarinet, from mm. 95-100, and will recur frequently throughout this episode in this exact form though presented in different transpositions (see Ex. 6.10). Though there is no semblance of tonal function, this excerpt is easily heard as using the pitch collection of C# major. The only pitches heard that are not members of this diatonic collection are the B's in the bassoon, which are heard as the b$\hat{7}$. This is another example in this movement with very tonal sections containing one or two "wrong" notes written by the composer to add more color and escape a sense of tonality. The 2nd bassoon from mm. 95-97 would be a T_9 transposition of the first clarinet melody if the E# were simply an E natural.

The second theme from Episode one begins in the violins in midst of the first fragmented transposition of the first theme in the bass clarinet, in m. 100 (see Ex. 6.11). This new theme is primarily made up of a rising second, followed by a leap of a 3rd or 4th, followed by another rising 2nd (see m. 101). This first statement of the second theme (in the violins) is primarily composed of a (0257) pitch class set, thereby maintaining a quite tonal sound.

Example 6.11: *Movement 4, Episode 1, bass clarinet & strings, mm. 100-104*



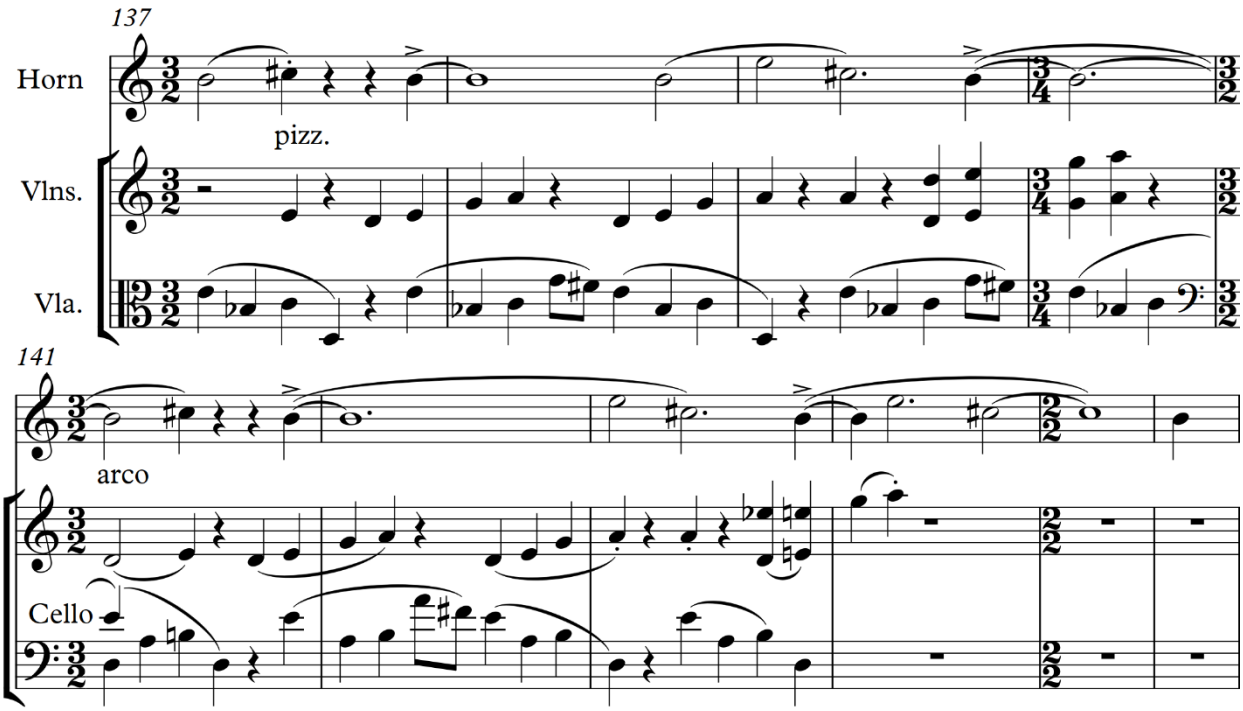
This theme does not maintain the same set class with its various transpositions, as the first theme does. The distance of each interval discussed above frequently changes, though its rising motion always stays the same. The accompaniment pattern (see 2nd violin Ex. 6.11) does not always agree with the theme's set class either, gradually expanding and becoming more chromatic with each new appearance. As with the accompaniment for the first theme, "wrong" notes are frequently written to thwart a sense of tonality, such as the b$\hat{7}$ and b$\hat{3}$ in the cello and viola which dismantles an otherwise diatonic Bb major collection from mm. 100-104 (see Ex. 6.11). This recurring "near-tonality" is very similar to the third movement, in which entire sections are tonal with the exception of the recurring "wrong" note phenomenon. The following table displays each appearance of theme 1 and 2, and the shifting of tonal centers or of primary sets that occurs (see Table 6.2).

Table 6.2: *Movement 4, Table of Episode 1 Themes, mm. 95-145*

Theme	Measure #	Primary Instrumentation	Tonal Center / Set Class
Theme 1	mm. 95-100	Clarinet	Db
Theme 1	mm. 100-104	Bass clarinet	Bb
Theme 2	mm. 100-104	Violin 1 & 2	(0257)
Theme 1	mm. 105-110	Oboe	Gb
Theme 1	mm. 105-113	Viola	Gb
Theme 2	mm. 114-120	Clarinet	(0158)
Theme 1	mm. 117-118	Cello	Bb
Theme 1	mm. 121-126	Flute	F
Theme 1	mm. 125-131	Oboe	F
Theme 2	mm. 132-136	Violin 1 & Clarinet	(0257)
Theme 1	mm. 137-141	Viola	E ? (see Ex. 6.12, pg. 111)
Theme 2	mm. 137-144	Violins, Bassoon & Flute	(0257) & (0158)
Theme 1	mm. 141-143	Cello & Harp	E ? (see Ex. 6.12, pg. 111)

Beginning in m. 137, the rising 2nd upper neighbor (E-F#-E) motion of the chorale theme begins to interrupt the episode themes. This leads to a tutti Dominant pedal on E from mm. 141-145, during which theme 1 shifts on two different occasions to E, though modified from the original version (see Ex. 6.12). The set class in the viola's attempt is (013579) in mm. 137-140 and set class (02479) in the cello from mm. 141-143. Though the cello's attempt constitutes the same set as the original set for theme 1 (see Ex. 6.10, 1st Cl.), in comparison to the original sets the ordered pitch class is different. Both of these statements begin on E, which would indicate a pitch-centricity of E as the other statements, but each contain chromatic alterations. The viola's statement is less diatonic (containing Bb's and C's), where the cello's statement alters these pitches to become more diatonic (A's and B's) (see Ex. 6.12).

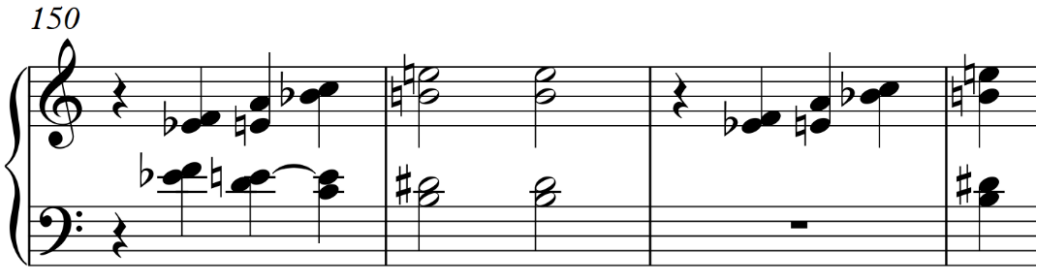
Example 6.12: *Movement 4, Episode 1, horn & strings, mm. 137-146*



IV. RITORNELLO 2

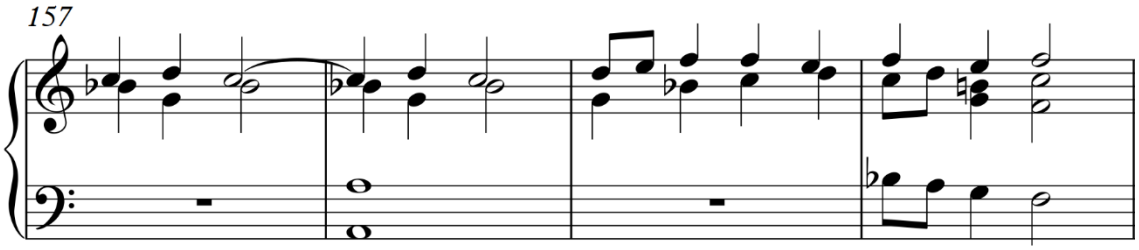
The ritornello returns from mm. 146-171, beginning with the first element (trumpet melody) in the original key (A) from mm. 146-149. Where the trumpet theme had been interrupted by the woodwind theme in mm. 69-73 (see Ex. 6.8, pg. 106), the interruption that occurs from mm. 150-153 is a transposition of Episode 1 theme 2 from mm. 114-120 (see Ex. 6.13 and compare to Ex. 6.11, pg. 109).

Example 6.13: *Movement 4, ritornello interruption, orchestral reduction, mm. 150-152*



The upper two voices are an exact T_6 transposition of the upper voices from mm. 114-120, while the lower two voices have been slightly modified during the transposition. The trumpet theme continues from mm. 153-156, followed by the oboe and string theme from mm. 157-162 (see Ex. 6.9). In mm. 77-81 this theme is at the dominant level (E), just as the chorale (see Ex. 6.9), but in the second ritornello from mm. 157-160, this theme tonicizes the $b\hat{6}$ (F), which is a T_1 transposition of mm. 77-81 (see Ex. 6.14).

Example 6.14: *Movement 4, ritornello, oboe & string theme, reduction, mm. 157-160*



A brief transition in mm. 161-162 leads back to the trumpet theme in the tonic of A from mm. 162-166, which is joined by the woodwind theme in full orchestration from mm. 167-171 to conclude the second ritornello.

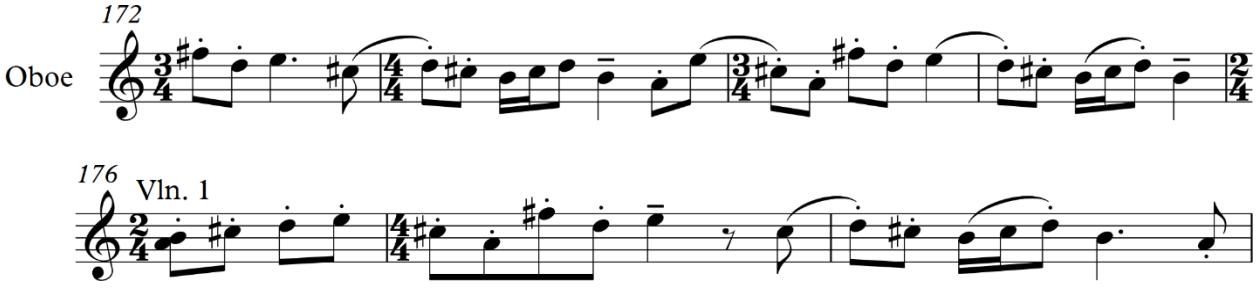
V. EPISODE 2

Episode two begins in m. 172 and is organized as a small rounded binary form. The first section (mm. 172-222) develops the chorale tune itself, spinning fragmented sections of this theme throughout the orchestra, with frequent modulations. In the second section (mm. 223-273), Foss introduces new motives, but from mm. 251-273 returns to the development of the chorale motives as well. Foss explores polytonality within this episode, as fragments of the chorale theme enter with different tonal centers and weave in and out of one another freely.

Some fragments are so brief that their origin from the chorale is difficult to discern and likewise their tonal center. In other places the accompaniment is comprised of smaller fragments of the chorale transposed and modified in such a way that the tonality within a given section is unclear. The latter technique frequently employs the upper neighbor major 2nd motive from the chorale (E-F#-E), which is spun throughout nearly every part of this movement.[61]

The first of these chorale fragmentations occurs right away from mm. 172-178, moving from the oboe to the first violin (see Ex. 6. 15). This example maintains the A tonality of the previous ritornello, though the violin and bassoon accompaniment occasionally add "wrong" notes (such as D# and E#).

Example 6.15: *Movement 4, Episode 2, oboe & violin 1, mm. 172-178*



After this initial chorale fragmentation, the distinction of tonality becomes even more turbulent. From mm. 172-189 there are five fragmented chorale melodies in five different tonal centers, many of these statements occurring nearly simultaneously. The following table provides a comprehensive listing of chorale fragments within section 1 with corresponding tonal centers (see Table 6.3).

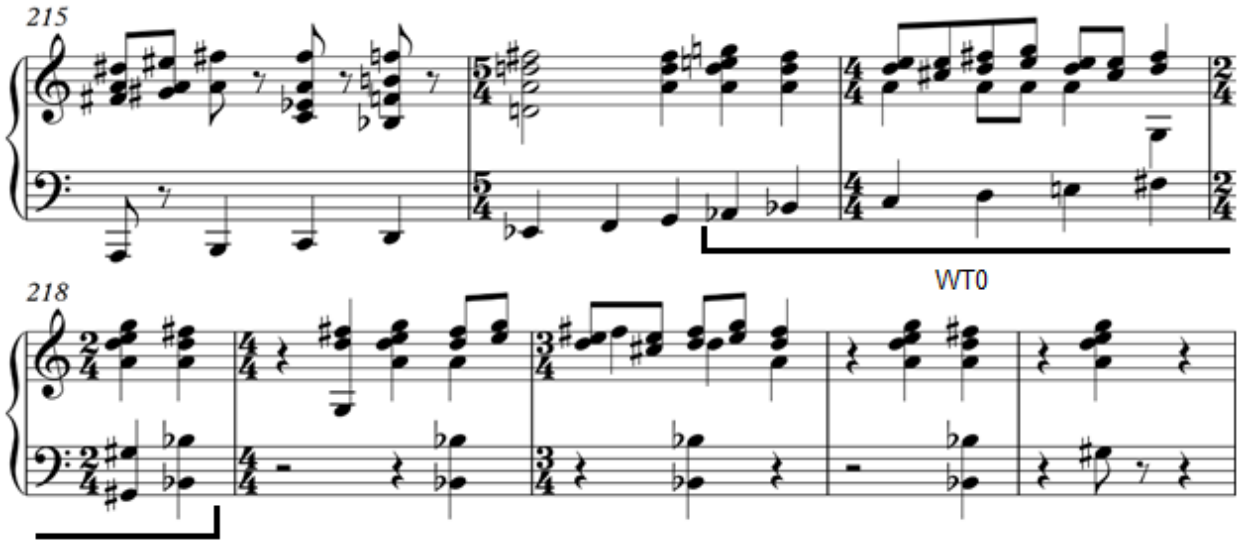
[61] Kolodin, "5960th Concert", 7.

Table 6.3: *Movement 4, Movement 4, Table of fragmented chorale tunes (Episode 2 section 1)*

Measure #	Primary Instrumentation	Tonal Center
mm. 172-178	Ob. & Vln. 1	A
mm. 177-180	Trumpet 1	Bb
mm. 179-184	Bassoon & Cl.	B
mm. 184-186	Bass & 2nd Cello	F
mm. 186-188	1st Cello & 1st Vln.	A
mm. 188-189	Trp. 1 & Vlns.	Bb
mm. 189-195	Vlns., Horn & Bassoon	E
mm. 194-197	2nd Bassoon & Horn	Bb
mm. 198-199	Bassoon, Trp. 1 & Vln. 1	B
mm. 199-207	Flutes	F
mm. 206-209	Strings	Gb

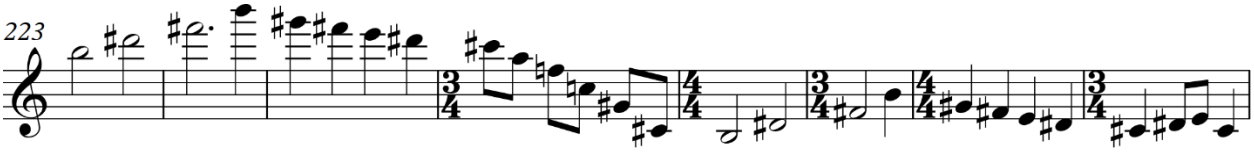
All the thematic material heard in the entire section 1 of Episode 2 is derived from the chorale fragmentations listed above. Following this passage, a transition (mm. 210-222) leads to section 2 of Episode 2. This transition, centered in D major, features primary melodic material in the highest voice played by the oboe and 1st violin. Notice the four-measure ascending bass line, which evolves into a WT0 scale beginning with the Ab in m. 216 (see Ex. 6.16).

Example 6.16: *Movement 4, Episode 2 transition, orchestral reduction, mm. 215-222*



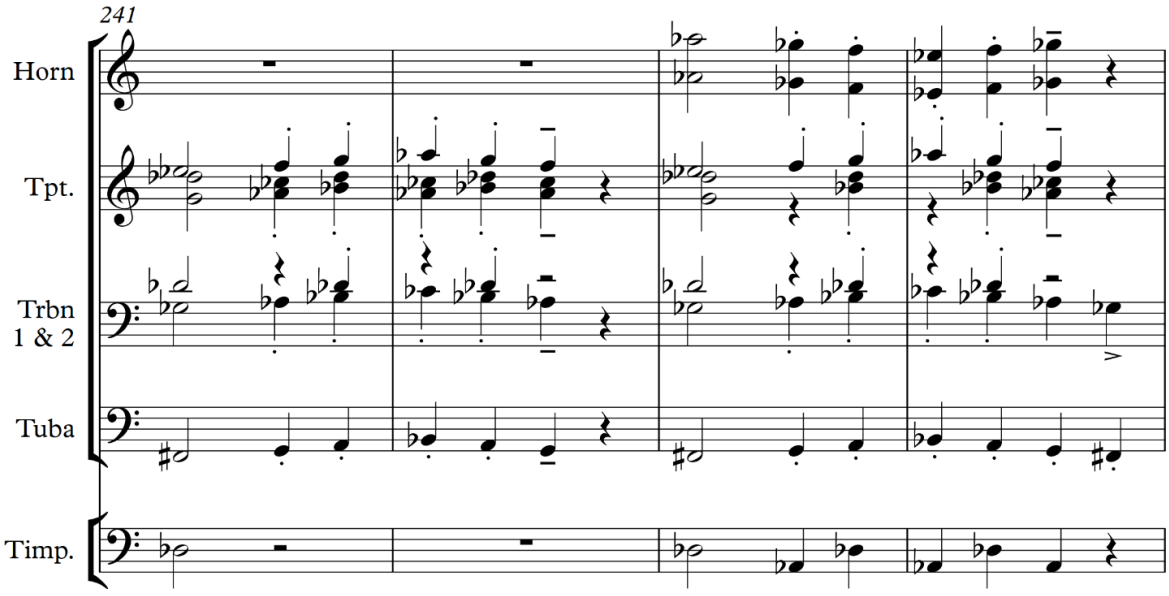
The second section of Episode 2 begins in m. 223 with a new melody in B major that extends to m. 230. This melody begins with a triadic arpeggiation (mm. 223-224) followed by a scalar descent (m. 225) and a chromatic descending gesture (m. 226) (see Ex. 6.17).

Example 6.17: *Movement 4, Episode 2 melody, violin 1 & trumpet, mm. 223-230*



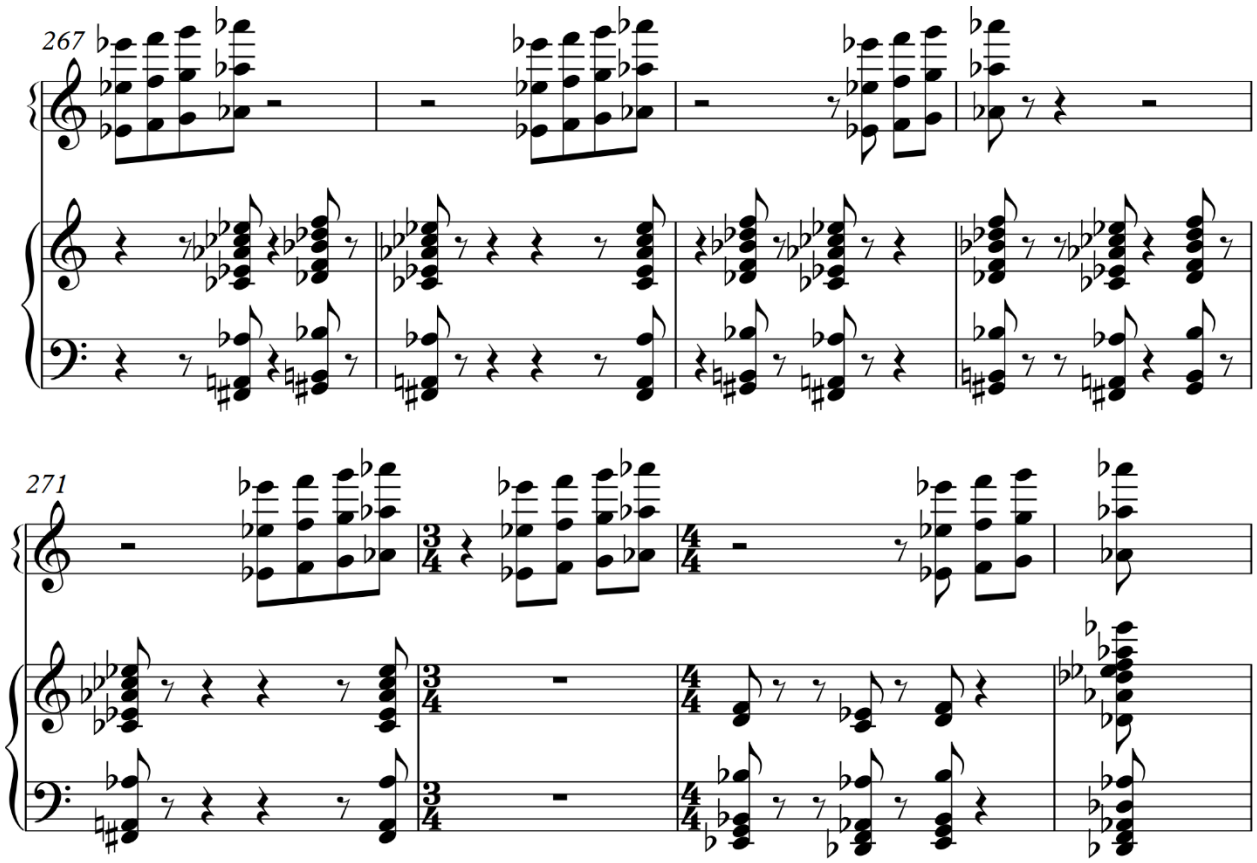
Another short melody follows in F# major from mm. 236-240, which is then subjected to chromatic treatment from mm. 241-251. This chromatic treatment obscures the tonal center, though the original tonality of F# is preserved (enharmonic Gb major) in the 2nd trombone while the same melody sounds in Eb major in the 1st trumpet. The harmonization of this melody consists of portions of the melody transposed and chromatically contracted. This is illustrated by the tuba, which maintains the same shape as the melody, but is contracted to rise a diminished 4th, instead of the perfect 4th heard in the 1st trumpet and 2nd trombone parts (see Ex. 6.18).

Example 6.18: *Movement 4, Episode 2, brass, mm. 241-244*



Following this section in the brass, there is an abbreviated return to section 1 in m. 251, which is why this episode can be considered rounded binary. From mm. 251-257 the violins, bassoon, oboe, and flute carry the fragmented chorale tune, now in B major. The tuba carries a whole tone set beginning and ending on Eb from mm. 253-256, and the trumpets have a truncated chorale statement in C from mm. 256-259. The violins suddenly modulate to Db in m. 257, carrying the chorale theme to m. 264. From mm. 263-267 the low woodwinds and low strings carry a partial chorale statement in the key of G. This leads to a transition from mm. 267, in which the two main motives are taken from the first and second section of Episode 2 (see Ex. 6.19). The first motive utilizes the rhythm and rising second of the primary chorale theme (see mm. 267-268) from the first section of Episode 2. For instance, if you look at the fragmented chorale theme from the last beat of mm. 173-174 (see Ex. 6.15) and replace all the pitches that are not $\hat{5}$ and $\hat{6}$ with rests, you end up with a syncopated rising 2nd motion from $\hat{5}$ to $\hat{6}$. This motive is interspersed with the second motive, which is the 1st trumpet melody from m. 241 into the first beat of m. 242 (see Ex. 6.18). In Ex. 6.18 this is a motion from $\hat{1}$ to $\hat{4}$ in Eb, but in Ex. 6.19 these same pitches represent a motion from $\hat{5}$ to $\hat{1}$ in Ab (see Ex. 6.18).

Example 6.19: *Movement 4, Episode 2 ending, orchestral reduction, mm. 267-273*



Every pitch in the syncopated chords moves up and down by major 2nd, as in the upper neighbor rising 2nd motive, and the rhythm is clearly from Episode 2 section 1. The harmonies spell out minor triads in the right hand, and enharmonically spelled minor 9th chords in the left hand. Taken together, they enharmonically spell an Abm^{b9} and a Bbm^{b9} in third inversion This unique voicing and inversion of a 9th chord is something Foss admitted to being one of his musical trademarks in interviews with Ev Grimes and Mary Shea.[62] The highest notes of these chords can be reconstructed to suggest the rising 2nd theme in the key of Ab major, which is supported by the dominant to tonic motion (Eb-Ab) of the running 8th note figure (see Ex. 6.19) and the Ab

[62] Shea, *The Middle-Period Compositions of Lukas Foss*, 308.

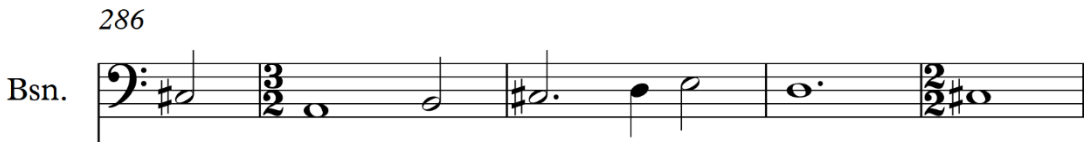
mixolydian melody in the 1st trumpet. In m. 273 these chords change to become Eb and Db major triads, which leads to the return of the ritornello in the subdominant related key of Db in m. 274.

VI. RITORNELLO 3 & EPIDOSE 3

This ritornello theme is the most truncated of all, only lasting from mm. 274-286. First the trumpet theme is heard in the key of Db from mm. 274-277, followed by the expected return of the woodwind theme (see Ex. 6.8, pg. 106) from mm. 278-280, and then both themes are combined at the close of the section from mm. 282-286. A chromatic mediant modulation from Db to A major (mm. 286-287) initiates the first section of the third episode, with Db (C#) providing the common tone link (see Ex. 6.20). This episode is quite different from the others with regard to tempo and character. The tempo is markedly slowed to (𝅗𝅥=76) and the character is much more stately and pronounced, in contrast to the earlier sections that at times almost sounded like a "circus piece" with their frantic tempo and virtuosic tunes chasing one another.[63] Similar to other episodes, Foss develops chorale melodies; however, in this episode chorale tunes from previous movements are restated and "mixed up," as Foss would say.[64] At times a clear chorale melody is being cited, while at other times Foss presents a "generic" chorale melody. The first of these chorale melodies is given in A major, consisting of the opening bars of Chorale No. 139 (see Ex. 6. 20).

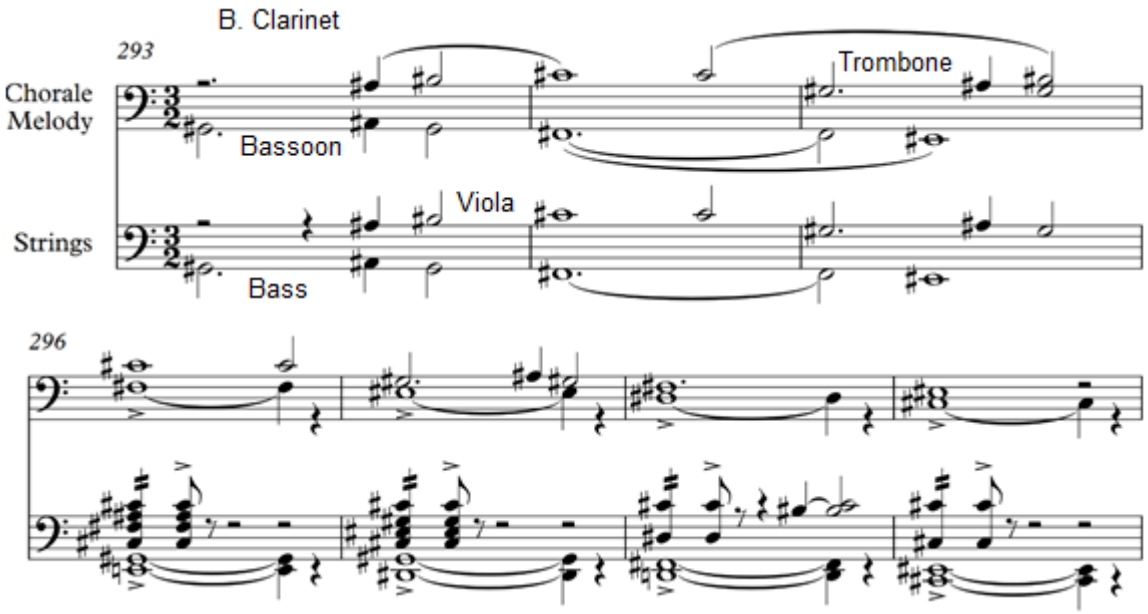
[63] Kolodin. "5960th Concert", 7.
[64] Ibid. 7.

Example 6.20: *Movement 4, Episode 3, bassoon, mm. 286-230*



This theme is interrupted from mm. 290-292 by the upper neighbor rising major 2nd theme (see Ex. 6.19, pg. 117), which moves primarily by quarter notes as opposed to its earlier syncopated rhythm. With the exception of the chromatic trumpets, the harmony moves back and forth from F#-G# major, preparing the modulation to C# that occurs beginning in m. 293. From mm. 293-299 a melody is given in the key of C# major, beginning in the bass clarinet, bassoon and bass in m. 293, then in the bass clarinet and viola later in that measure, and finally in the trombone in m. 295 (see Ex. 6.21).

Example 6.21: *Movement 4, Episode 3, orchestral reduction, mm. 293-299*

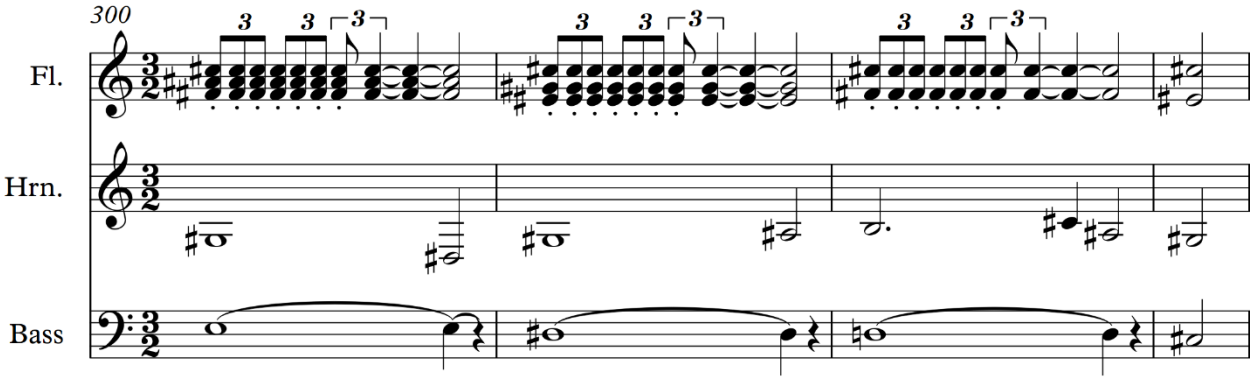


The common feature of these melodies is the $\hat{5}$ to $\hat{6}$ step from Chorale No. 133, and a step-wise descent back to tonic. From mm. 294-299 the lower brass and strings chromatically descend from

F#-C#, distorting the diatonic harmonies from mm. 296-299. With the exception of these notes, the harmonies from mm. 296-299 are: F#-C#-B#^{o}-C#. This pattern of consistently diatonic harmonies with chromatically descending bass notes remains a common feature of this episode.

From mm. 300-303, the first two and a half measures of Chorale No. 78 (2nd movement) are given in the horns, altering the C# major tonality briefly in m. 302 to C# minor. Aside from the brief transition to the parallel minor, the harmony in these four measures ends up being the same as the previous four measures, F#-C#-B#^{o} (B# in trumpet, not shown)-C# (see Ex. 6.22). The example below also contains the chromatically descending bass line from mm. 295-299.

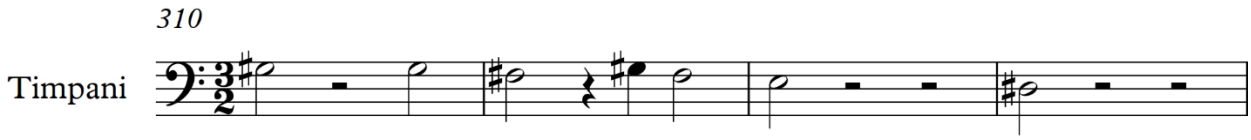
Example 6.22: *Movement 4, Episode 3, flute, horn & bass, mm. 300-303*



A modulation from C# major to G# major (mm. 303-306) (C#-G#-F𝄪^{o}-G#) prepares the next section, where the following two and a half measures (mm. 3-5) of Chorale No. 78 are given in the bassoon, 2rd trombone and solo cello (mm. 307-310). The harmony in this section is (E-G#-F𝄪^{o}- G#), though as the cadence on G# is sounded, the trumpet, timpani and harp suddenly enter in the key of B major. Aside from a held B, which moves down to its leading tone and back (m. 312-313), a new melody appears unaccompanied in the timpani, harp, solo cello and 2nd violin

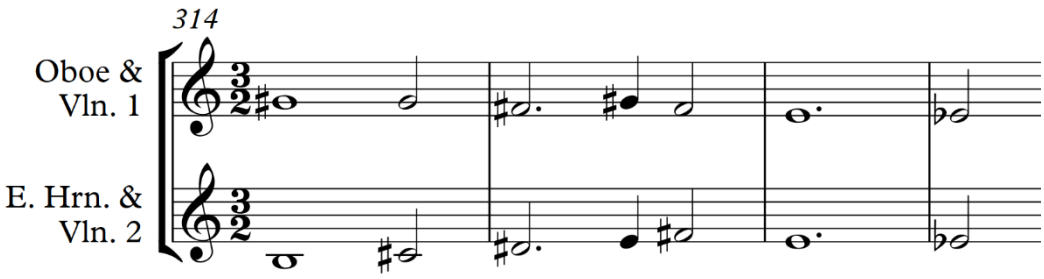
(see Ex. 6.23). The melody seems unrelated to any chorale, though it contains the pitch content from the previous passage (mm. 307-310) in retrograde.

Example 6.23: *Movement 4, Episode 3, timpani, mm. 310-313*



This same melody is repeated in the oboe and 1st violin (mm. 314-317), in counterpoint with the first four measures of the melody from Chorale No. 139 (movement 3) played by the English horn and 2nd violin (see Ex. 6.24). This counterpoint is accompanied by the progression (E-B-F#^{7}-Ab), which prepares another mediant modulation to Ab in m. 317.

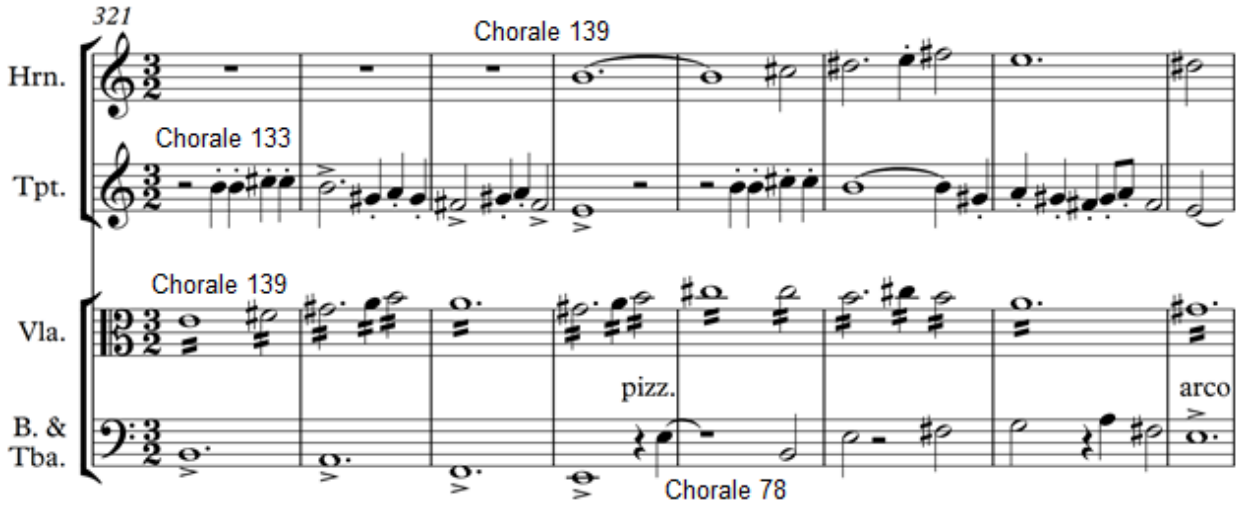
Example 6.24: *Movement 4, Episode 3, oboe, violins & english horn, mm. 314-317*



The second section of Episode three begins in 321, with the return of the trumpet theme from the ritornello transposed to the key of E major (see Ex. 6.25). One might perceive this section having a dual function, because it continues in the same manner as section one (cyclical chorale development, slow tempo, and changed character), but also presents the trumpet theme in its original voicing. The rationale for labeling this section two of Episode 3 rather than the return of the ritornello is two-fold: the original tempo and light character do not return, and the woodwind motive is not present throughout this section. However, its function serves the

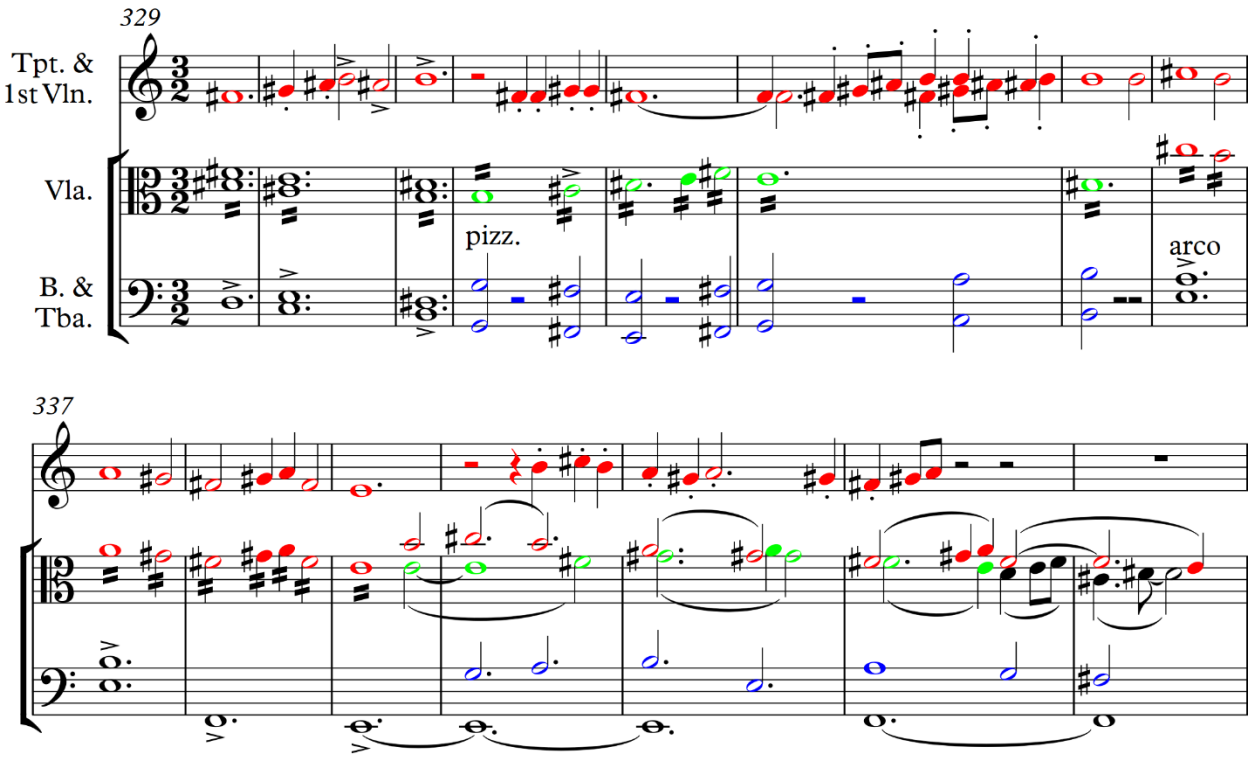
purpose of both a continuation of Episode 3 and the return of the ritornello, which will be discussed.

Example 6.25: *Movement 4, Episode 3, horn, trumpet, viola, bass & tuba, mm. 321-328*



As in section one of Episode 3, section two continues to develop chorale melodies from the second and third movements, but now in counterpoint with the trumpet theme from the ritornello. In the above example (Ex. 6.25), it is easy to see three different chorale melodies being developed simultaneously. The harmonic progression for this section (like the previous section) consists primarily of diatonic harmonies, joined with dissonant descending bass lines. As illustrated in mm. 323-324 (Ex. 6.25), Foss frequently uses descending Phrygian step-wise motion to approach cadences in the bass. The other accompaniment is primarily "tuplet" arpeggios in the upper woodwinds, and tremolos of tertian harmonies in the strings. The following example shows all other appearances of chorale material for the rest of the section (see Ex. 6.26).

Example 6.26: *Movement 4, Episode 3, orchestral reduction, mm. 329-343*



In the above examples, color is used to distinguish various chorale motives in the notation. Notation in red represents Chorale No. 133, green represents Chorale No. 139, and blue represents Chorale No. 78 (see Ex. 6.26). Clearly, Foss is primarily interested in developing the material from the chorales in this section, based on the proliferation of chorale tunes. The passage based upon Chorale No. 133 modulates to the dominant (B) (mm. 329-335) as in Bach's harmonization, swiftly returning to tonic (E) by m. 336. For the first cadence in B (m. 331), Foss utilizes another Phrygian cadence (see bass voice in Ex. 6.26), as he does twice again in this section (see mm. 338, and 342-343). For the second cadence in B (m. 335), Foss presents the Chorale No. 78 melody in the bass, still in the key of E minor. Strengthening the conclusion of this section, Foss employs the endings from each respective chorale, which leads to the beginning of

Episode four in mm. 344. Since this passage leads to an episode, rather than a normal statement of the ritornello, one may also consider this to have a dual function as a ritornello and an episode.

VII. EPISODE 4

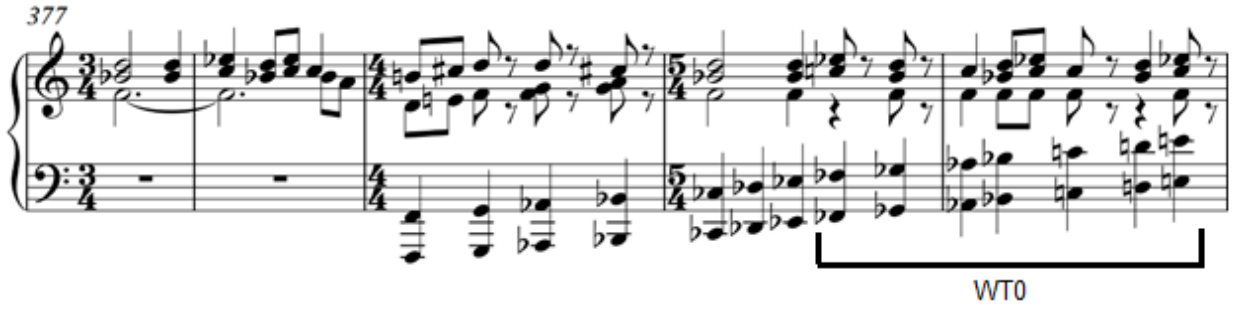
The fourth and final episode begins in mm. 344 in the key of F. It is a T_8 transposition of Episode 2, and has the same rounded binary structure, though missing the second theme from part two. The T_8 transposition level suggests that the final ritornello will return in the key of A, since the ritornello after Episode 2 was in the unexpected mediant key Db. The following Table 6.4 will be helpful to compare to Table 6.3, as each fragmented chorale theme can be found a T_8 transposition from its original appearance in Episode 2 (with the exception of those themes from mm. 187-199, which are not present in Episode 4).

Table 6.4: *Movement 4, Episode 4, Table of fragmented chorale tunes (Episode 4 section 1)*

Measure #	Primary Instrumentation	Tonal Center
mm. 344-350	Flute & Clarinet	F
mm. 349-353	Oboe	F#
mm. 351-357	Bassoon, Flute & Clarinet	G
mm. 358-360	Bassoon & Oboe	Db
mm. 358-361	Piccolo, Clarinet & 1st Horn	F
mm. 363-371	Piano & upper woodwinds	Db
mm. 370-373	Tpts., Tbns. & Tuba	D

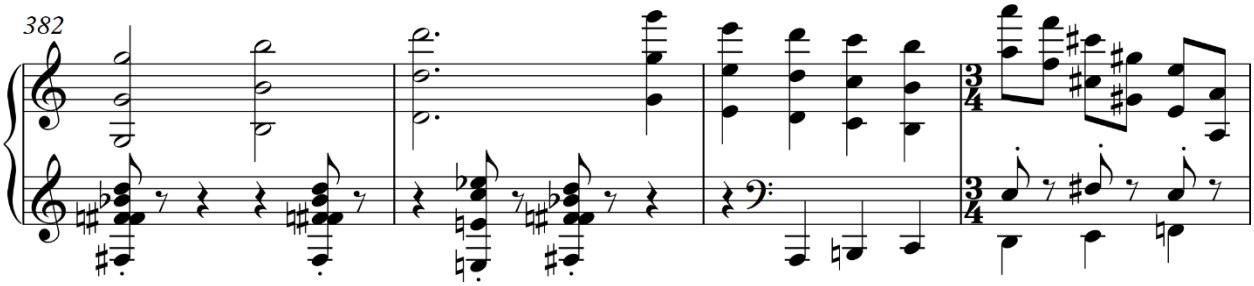
Following the passage containing fragmented chorale melodies (see Table 6.4), a transition is heard from mm. 374-381 (see Ex. 6.27) which is comparable to the transition from mm. 210-222 (see Ex. 6.16).

Example 6.27: *Movement 4, Episode 4 transition, orchestral reduction, mm. 377-341*



This transition passage is transposed to center around Bb major, as would be expected, and the same rising motion in the bass becomes the WT0 scale from the Fb in m. 380 through the E in m. 381. This leads to the beginning of section two in m. 382, which is transposed to the key of G. The accompaniment from section one recurs for the first two measures in a syncopated fashion, creating an interesting effect (see Ex. 6.28), while the second statement of the section two melody occurs from mm. 386-389 as heard previously.

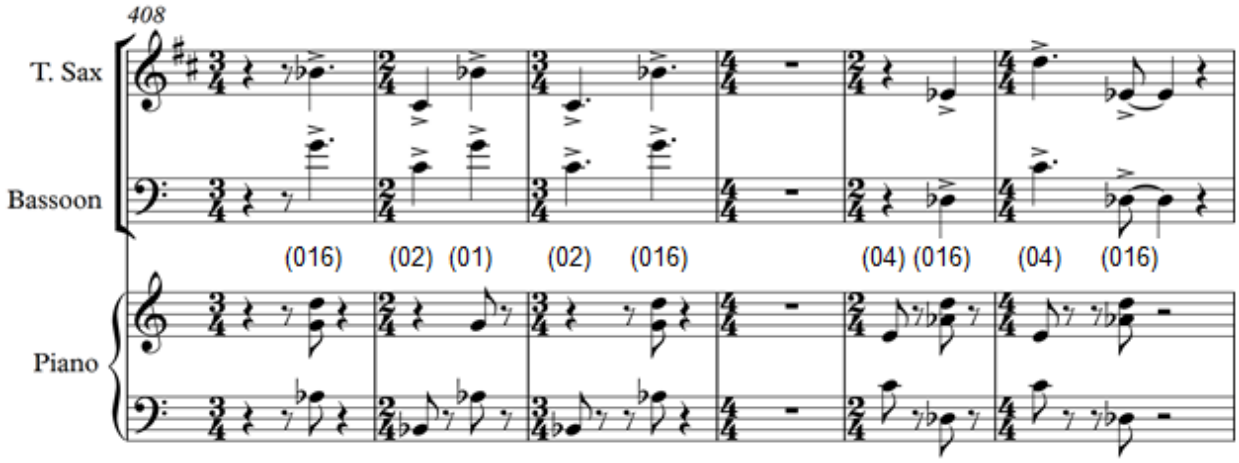
Example 6.28: *Movement 4, Episode 4, orchestral reduction, mm. 382-385*



Comparable to mm. 251-267, there is a small return to section one beginning in m. 389 that develops chorale fragments in the flutes in the key of G. The tuba plays a whole tone passage beginning and ending on B from mm. 391-394, and a partial chorale statement in Ab occurs in the horns, cello and viola from mm. 394-399. This is accompanied by another partial chorale statement by the flutes, clarinets and oboes in A major from mm. 395-402. From mm. 401-405

the lower woodwinds and lower strings have a partial chorale statement in Eb, which leads directly to a return of the transition previously heard in m. 267. It is noteworthy that this entire section has also been at a T_8 transposition level to Episode 2. The transition is primarily a T_8 transposition of the earlier transition, with an added syncopated rhythm in the tenor sax, bassoon and piano from mm. 408-410 and 412-413 (see Ex. 6.29). This syncopated rhythm occurs only briefly as an interruption to the main transition motive, which is transposed to center around E, the dominant of the movement's original tonal center (A).

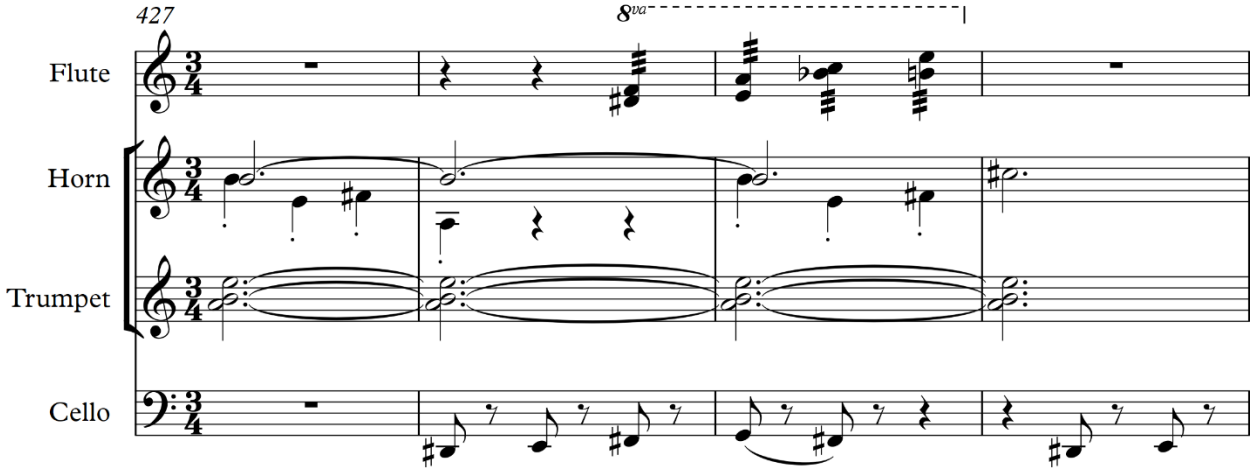
Example 6.29: *Movement 4, Episode 4 ending, tenor sax, bassoon & piano, mm. 408-413*



In place of a return to the ritornello following this transition (as heard in Episode 2), there is an extended transition from mm. 416-439. This transition acts as a dominant pedal, to re-emphasize the tonality of E and prepare for a return to the work's tonic (A). This transition is primarily split into two sections, the first from mm. 416-426, and the second from mm. 427-439. The first section sustains a (026) [10,0,4] harmony in the horns, while the 1st trombone and bassoons prominently sound the E-F#-E upper neighbor major second motive. Under this, the bass voices descend step-wise in E minor from G to D#, and rising back once again, emphasizing

an E minor tonality. In mm. 427 a pedal on “E” begins in the contrabass and low brass, initiating the beginning of the second section. The harmony that was held in the horns is changed to (0257) [9,11,2,4], which the rest of the orchestra joins to fill in. The 2nd horns sound a melody which carries the shape of that from Episode 1 theme 1 (see Ex. 6.10) and is made up of the pitches from the (0257) harmony just mentioned, as the flute melody from the end of Episode 1 (mm. 141-144) returns. Under this the upper neighbor major second motive in the horn and E minor bass line continue to sound (see Ex. 6.30).

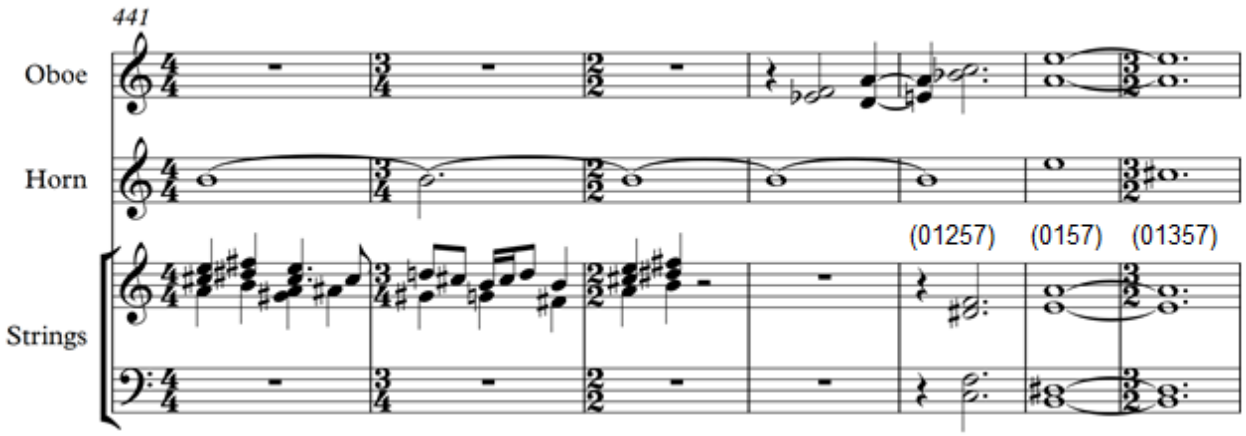
Example 6.30: *Movement 4, Episode 4 extended transition, fl., hrn., tpt. & cello, mm. 427-430*



VIII. FINAL RITORNELLO & CODETTA

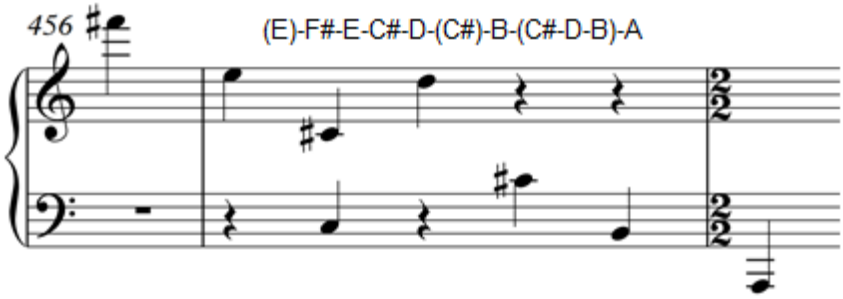
In m. 436 the horn melody rises from E to A, stepping down to F# in m. 439, which brings the transition to an end, and initiates the final ritornello. The final ritornello is marked by its inability to complete the chorale theme each time it is attempted. The theme begins in the 1st violins in the key of A in m. 441, to be cut short in m. 443 as the horn prepare for another E-A-F# statement from the transition in m. 445-447. A rhythmically augmented version of the flute motive appears in the oboe, and the strings and trombone bring back slight modifications to the (0257) harmonies heard during the transition (see Ex. 6.31).

Example 6.31: *Movement 4, final ritornello, oboe, horn & strings, mm. 441-447*



The flutes and oboes again attempt the chorale theme from mm. 448-450, which breaks off into a descending chromatic sequence from mm. 450-453. The bassoons sound the chorale theme from mm. 451-456, leading to a one measure *klangfarbenmelodie* cadential point, which is a fragmented version of the chorale theme (see Ex. 6.32). This following example has the given pitches listed, while the missing pitches from the trumpet theme are in parentheses. This attempt at the ritornello lacks the original orchestration, and never states the woodwind theme.

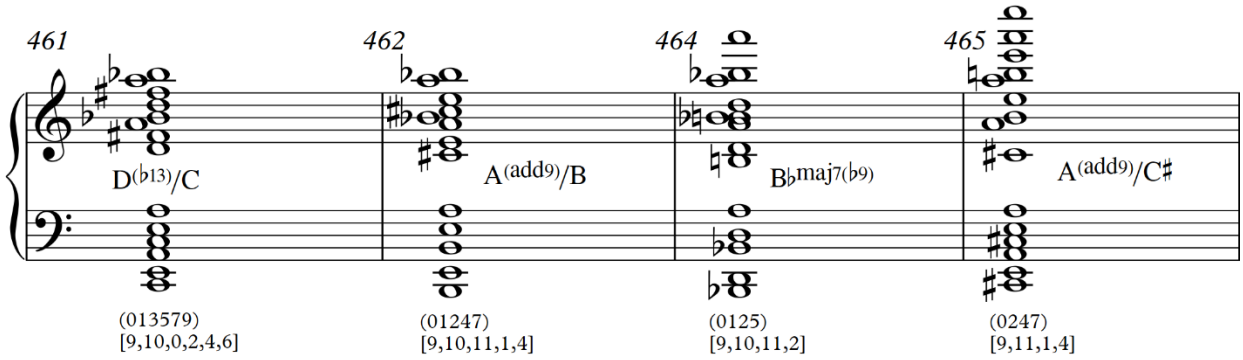
Example 6.32: *Movement 4, klangfarbenmelodie reduction, mm. 456-458*



In m. 460 there is an ascending A major sextuplet figure in the trumpet, leading to a fortissimo fanfare codetta from mm. 461-471. There are three chords given before the resolute

chord in mm. 465 (see Ex. 6.33), which is interrupted by the woodwind theme from mm. 465-469.

Example 6.33: *Movement 4, codetta chords, orchestral reduction, mm. 461-471*



The bass line in these chords descend chromatically from C to A (implied by resolute chord in 1st inversion), ending with an implied Phrygian cadence, as seen frequently throughout this movement (see Ex. 6.22, 6.25 & 6.26). The first chord is a polychord, with an A minor in the bass voices and a D major in the treble voices, and the addition of a Bb which is sustained through each of the first three chords. Spelled a as an extended tertian harmony, this is a D^{b13}, with a missing 11th. The second chord is an A major with a B in the bass and the Bb still in the treble voice, which is an A major with a flat 9th, over a normal 9th in the bass. The penultimate chord is a Bb major 7 chord with an enharmonically spelled flat 9th (B natural), which is another instance of an anticipated Phrygian cadence. The ultimate chord is an A add 9th chord, with the 3rd in the bass. The sets for each chord are given, all seeming to be variants on the (0247) set. The statement of the woodwind theme, which was missing from the failed ritornello attempt, gives the ending a sense of completion.

This movement ultimately brings a sense of unity to the entire work with an introduction that repeats thematic material from movement one, and a massive cyclical section (Episode three section two) that synthesizes material from movements two, three and four. This section is not only a glaring example of cyclicism within this symphony, but it is also the only section within the entire work that sounds remotely "chorale-like". This movement is also different from the other movements in the way that it presents its chorale material. Unlike any other movement, the clearest statement of the chorale melody actually occurs in the middle of the movement, as opposed to at the beginning or the end. This allows the composer to end the work in a driving and exciting way, while fulfilling the expectation of completing the chorale theme in the 3rd Episode.

Chapter 7: Conclusions

The study of Foss's *Symphony of Chorales* reveals that it is indeed a "big piece" as Foss casually told interviewer Ev Grimes, intricately crafted with meticulous care. Nearly every aspect of the compositional process preserves the composer's original intention of unity around Bach's chorale harmonizations. Each movement maintains the chorale melodies cited as the primary source of motivic material, and even the accompanimental material is frequently a derivation of chorale material. The form of each movement conforms generically to Baroque and Classical formal organization, with exceptions made to typical formal structure in order to accentuate chorale material. It is evident after study of this work that the use of collage and musical borrowing are not only significant but defining aspects of this symphony.

Lukas Foss was fond of Stravinsky's saying: "one must always steal, but never from oneself". To Foss, stealing from another composer represented an enriching of musical vocabulary, while only drawing from one's own experience not only limited growth, but did not take much creativity.[65] Foss believed that style and technique should be differentiated: style was an inherent part of the composer's personality, while technique (12-tone, aleatoric, fugue, neoclassic, etc.) was only a tool in your compositional toolbelt. [66] In some lecture notes from the *Lukas Foss Papers* titled "Cultural Thieving", Foss writes that "influences are obvious, no idea comes out of a void. It is what you do with the stolen goods."[67] In another lecture, he suggests that we should "play down basics like who influenced whom, and instead study the

[65] Lukas Foss, *Lukas Foss Papers*, "A Twentieth-Century Composer's Confessions about the Creative Process". Unpublished essay/lecture. 3-4
[66] Platt, Interview with Lukas Foss, 2-3.
[67] Foss, *Lukas Foss Papers*.

way the influence is transformed, in other words: how the artist made it his [or her] own".[68] This is certainly a relevant conversation in relation to this work, as the "stolen goods", in this case Bach's chorale harmonizations, do not define this work nearly so much as what Foss is able to do with them. In the same way, it is easy to see the influence on Stravinsky within this work, but even more interesting is how Foss uses Stravinsky's influence, particularly in the form of European neoclassicism, and transforms it into something that Stravinsky himself would not have created. In this way Foss is participating in the same tradition that both Bach and Stravinsky themselves participated in, by recycling their musical heritages and techniques, and subsuming them within their own personal style.

Within this work the impact of Foss's earlier compositional influences, particularly Hindemith, Ives and Stravinsky, is evident. Hindemith's ability to "use the whole chromatic scale without modulating" seems to be of particular influence in this, at times highly chromatic, Neoclassic work. The second movement in particular displays a highly chromatic yet tonal quality, in addition to a highly dense Hindemithian contrapuntal structure. Ives's concept of the "polyphony of musics" is quite evident within the densely contrapuntal second movement as well. Stravinsky's influence is evident throughout, primarily in what Foss called "a kind of wonderful frozen harmony and a kind of wonderful static rhythm".[69] This quality is particularly evident in the final episode of movement four (see Ex. 6.29). Foss met Stravinsky during the Boston premiere (February 20-23, 1946) of his *Symphony in Three Movements*, for which Foss was the pianist and Stravinsky was the conductor. Particularly the first movement of

[68] Foss, *Lukas Foss Papers*, "A Twentieth-Century Composer's Confessions about the Creative Process". 3-4.
[69] Shea, *The Middle-Period Compositions of Lukas Foss*, 260.

Stravinsky's symphony, with its highly dramatic introduction, leading to sparsely orchestrated passages with highly accented rhythms and motivic fragmentation is reminiscent of Foss's fourth movement. In fact, the very name *Symphony of Chorales* could be construed as an imitation of Stravinsky's *Symphony of Psalms*, though this is never explicitly mentioned.

Not only is this Foss's 2nd symphony representative of the culmination of his Neoclassical style period, but as Foss himself said, in it he seems to be "already getting inwardly ready for new things to happen, which then happen in subsequent pieces, like *Time Cycle*".[70] It is not insignificant that Foss founded the Improvisation Ensemble while he was writing this piece (1956), which was sure to have begun to change the direction of the work. Foss's experimental style period was characterized by atonality, free serialism, non-traditional instrumental techniques/instrumentation, controlled chance, collage and inaudible playing.[71] Though collage and non-traditional instrumentation are the only element from Foss's middle period explicitly present in this symphony, there is certainly a difference between this work and other Neoclassical works like *Psalms* (1955). In the program notes for the BMOP recording, Matthew Guerrieri states that within this symphony, "Foss had moved away from the pristine clarity that was Neoclassicism's calling card, accelerating his embrace of complexity and chaos as expressive resources in their own right. That he would do so while citing Bach, the great pole star of Western music history, is also in character."[72]

The *Symphony of Chorales* is unfortunately a largely understudied and indeed underperformed work in Foss's catalogue (see Appendix C). Not only is it an important work to

[70] Grimes, Interview with Lukas Foss, 42.
[71] Shea, *The Middle-Period Compositions of Lukas Foss*, 2.
[72] Matthew Guerrieri*, Lukas Foss: Complete Symphonies*, 11-13.

be considered in relation to Foss's compositional evolution, but it is a well-crafted and thrilling work in its own right. Foss's use of collage and musical borrowing illustrate an impressive ability to subsume source material while maintaining his own unique style, all the while demonstrating a mastery over his imminently receding Neoclassical idiom. The recent studio recording by the Boston Modern Orchestra Project (*Lukas Foss: Complete Symphonies*, 2015) is a thoughtful representation of this masterful work and led to the genesis of the current study. It is the author's hope that this recent recording and the present study will encourage further study into Foss's lesser known works, which represent a significant part of American musical developments in the 20th century.

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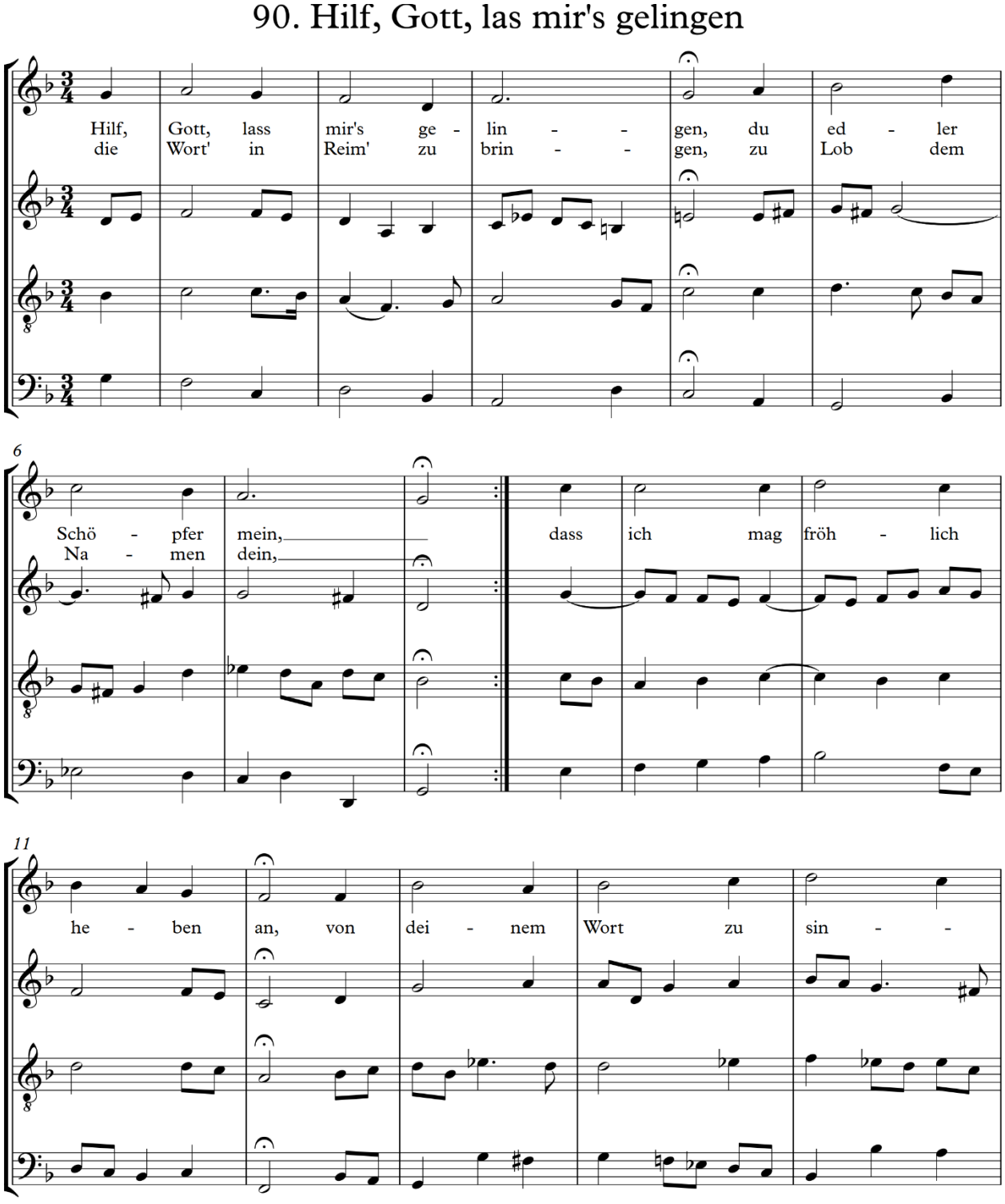
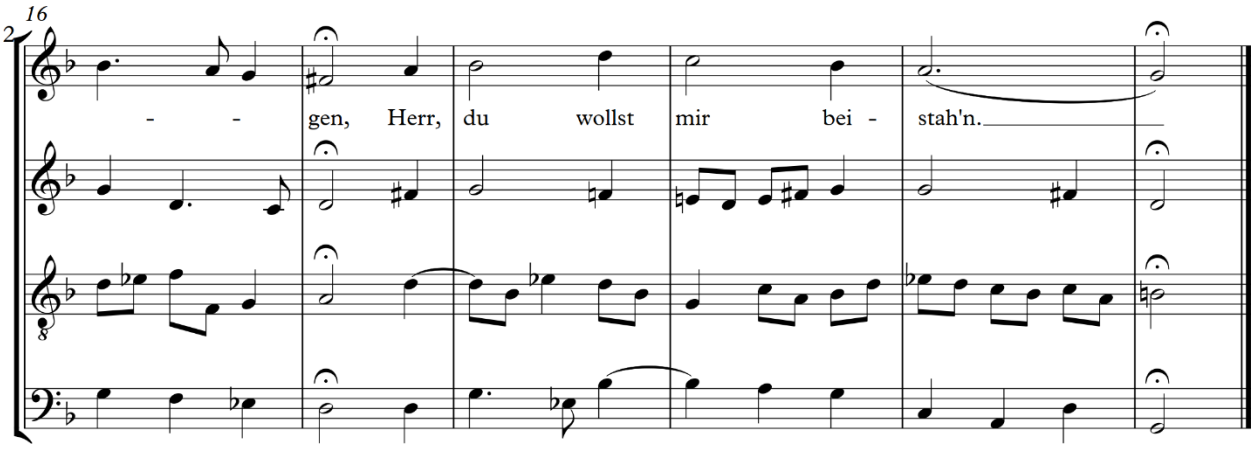
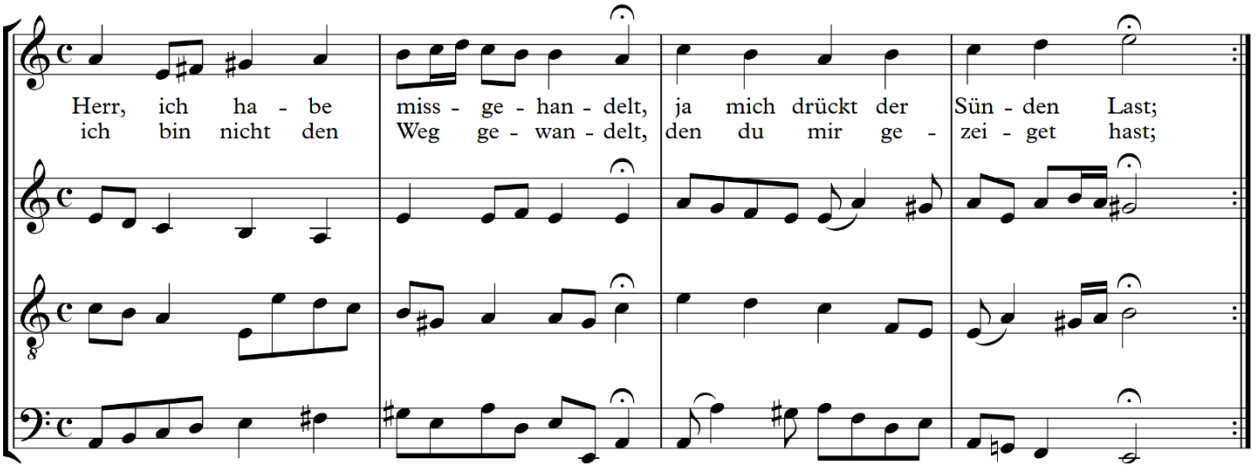
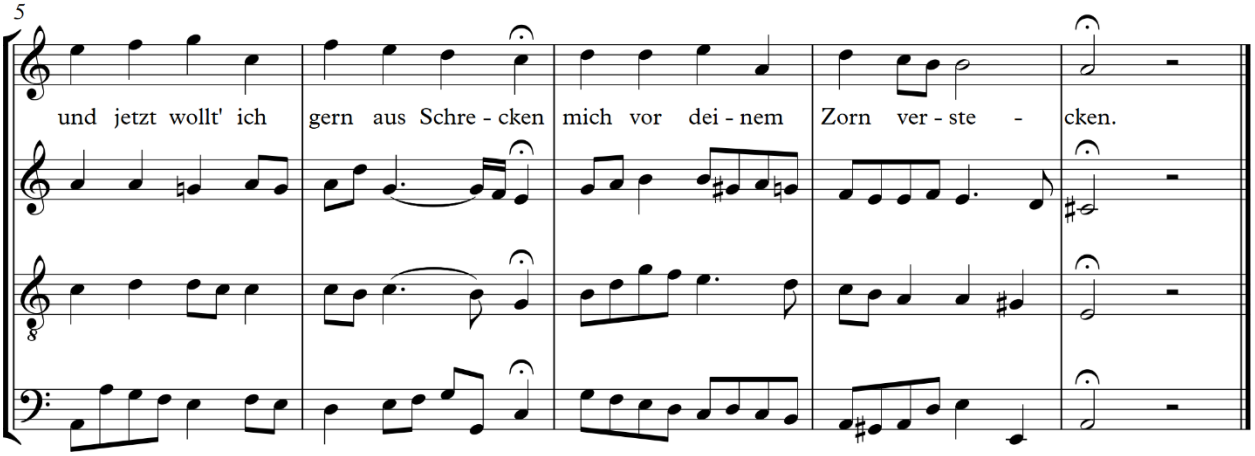
Appendix A: Bach's Chorale Harmonizations



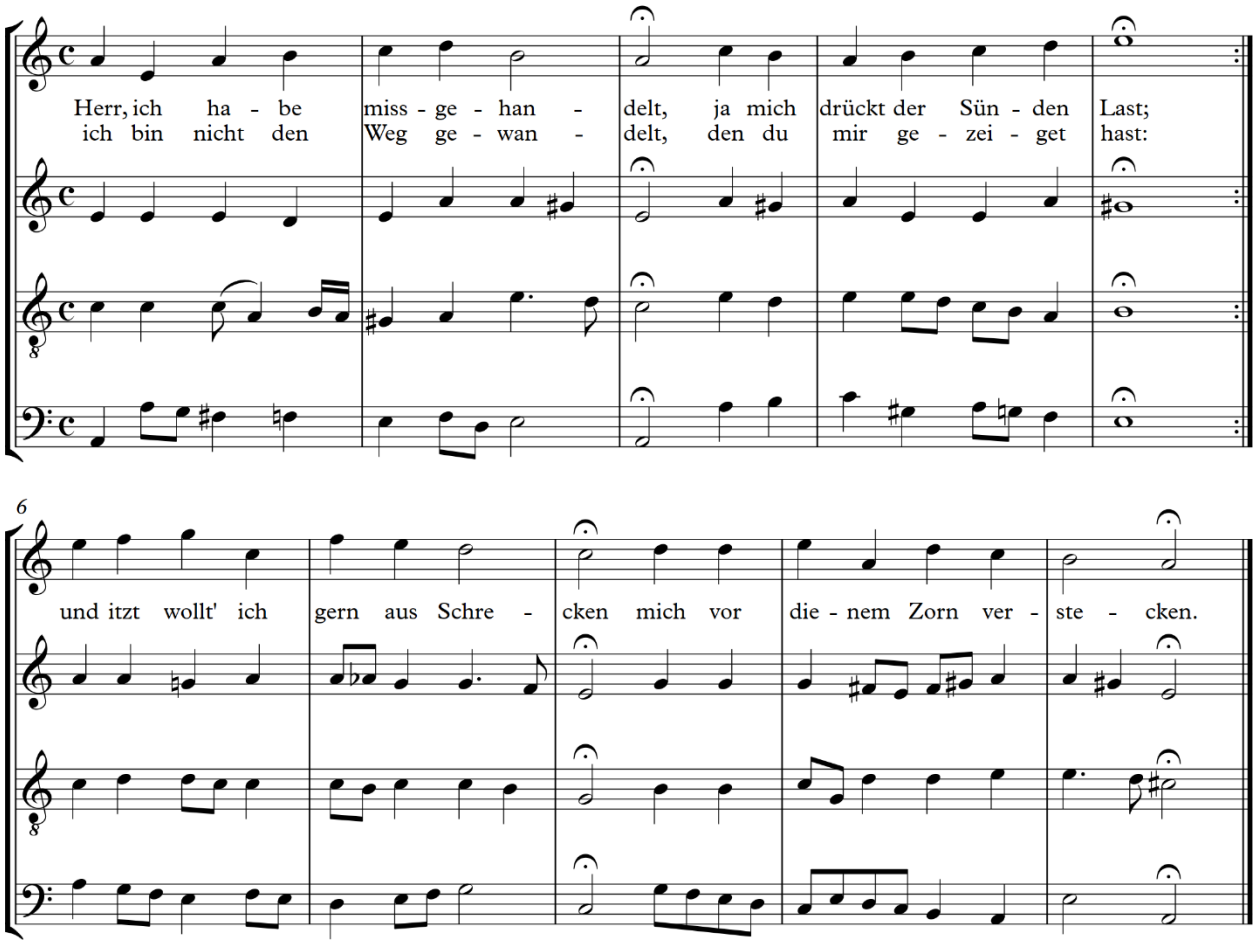


77. Herr, ich habe missgehandelt

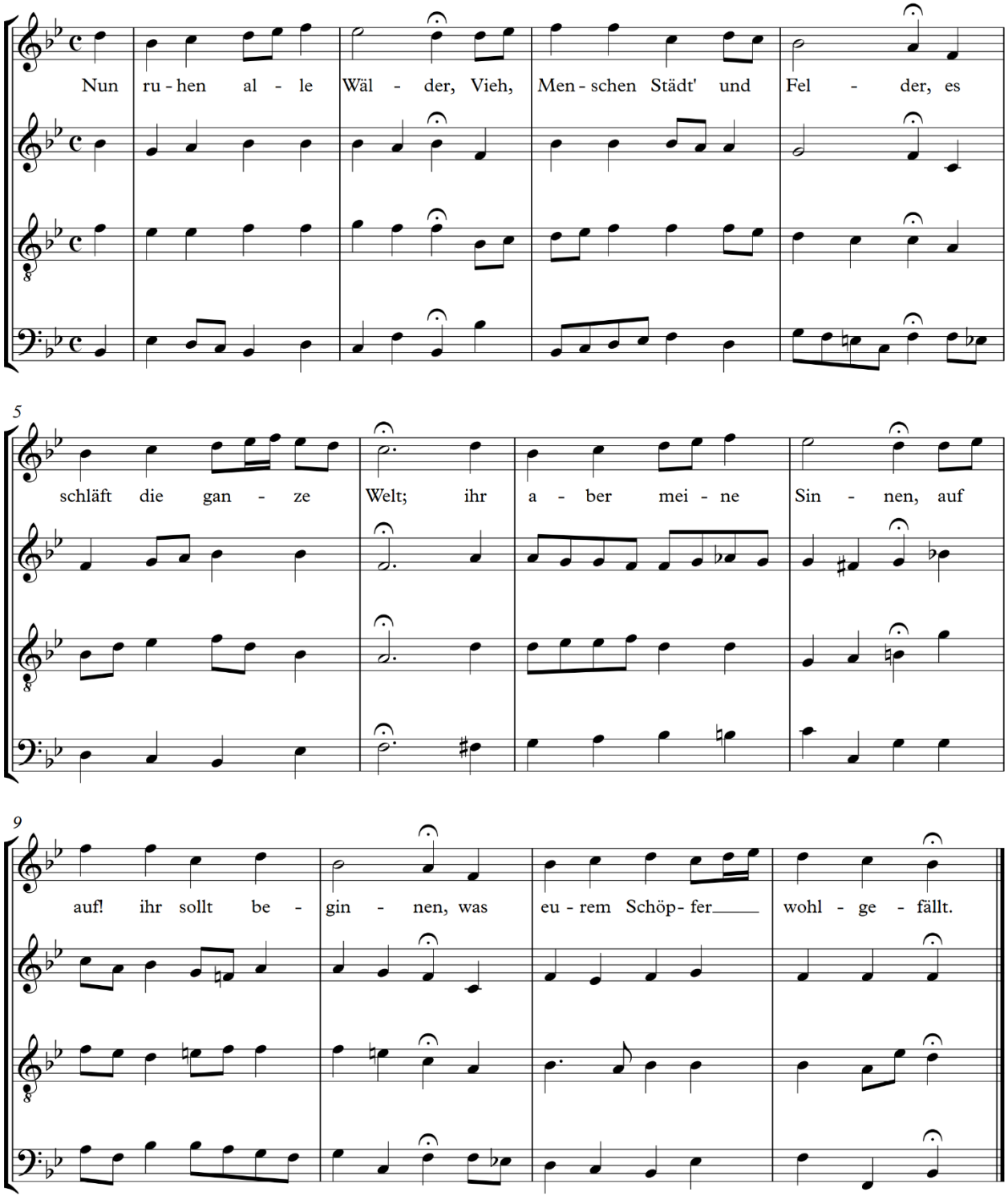




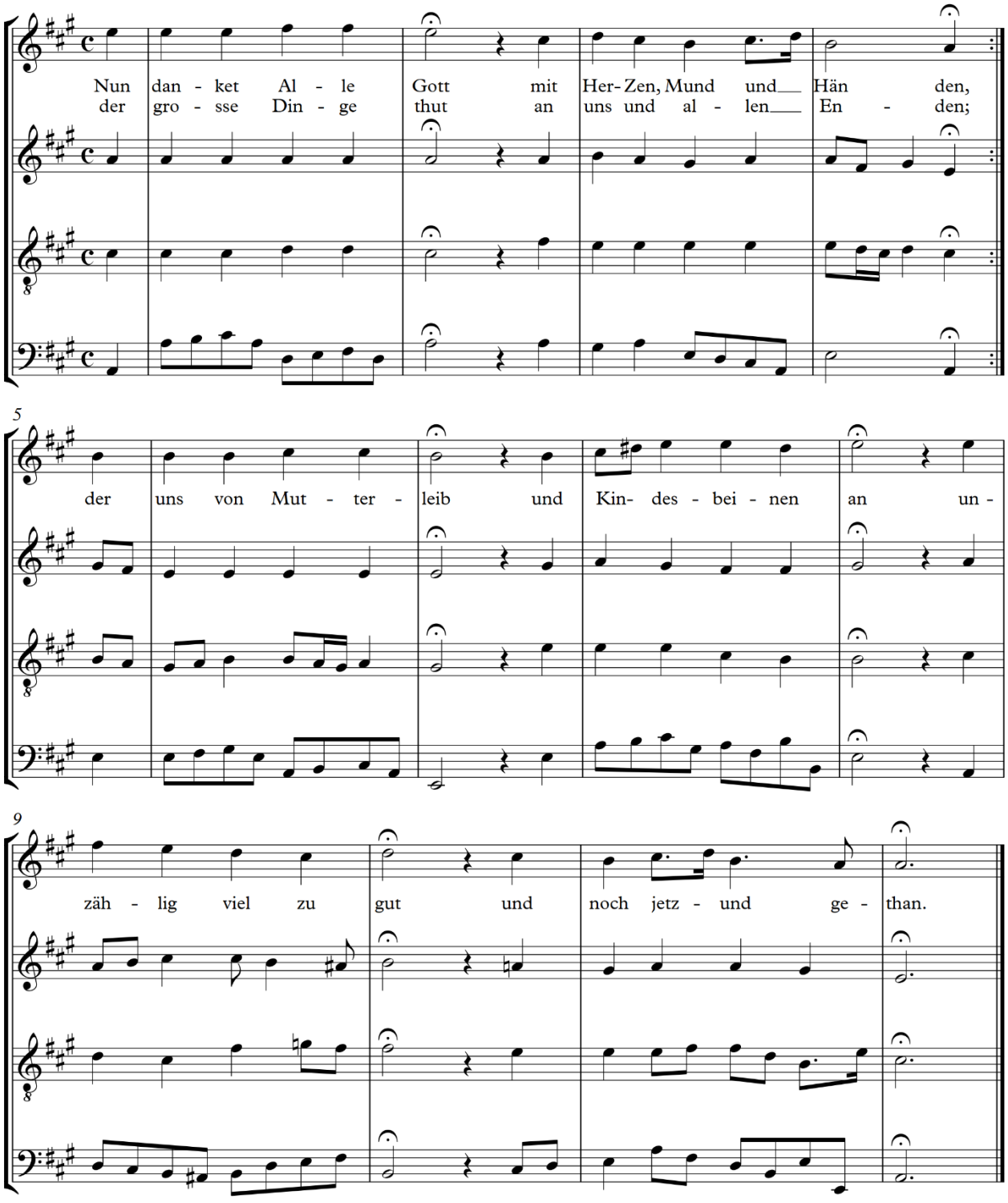
78. Herr, ich habe missgehandelt



139. Nun ruhen alle Wälder



133. Nun danket Alle Gott



Appendix B: Lukas Foss's English Chorale translations

Chorale No. 90: Hilf, Gott, las mir's gelingen
O God, help my endeavor, Almighty maker mine. To weld the words together, Praise thee in verse and rhyme. That I may gladly sing of thee, And of thy Word forever, Lord, wouldst thou stand by me.
Chorales Nos. 77 & 78: Herr, ich habe missgehandelt
Lord, to thee I make confession, I have sinn'd and gone astray. I have multiplied transgression, Chosen for myself the way. Forced at last to see my error, Lord I tremble at thy terror.
Chorale No. 139: Nun ruhen alle Wälder
Now slumber does descend, O'er man, beast, town and land; The world to sleep does bow, But you, my spirit, pray, Begin your task, obey: Arise, and please your maker now.
Chorale No. 133: Nun danket Alle Gott
Now thank we all our God, With heart and hands and voices, Who wondrous things hath done, In whom his world rejoices; Who from our mother's arms, Has blessed us on our way, With countless gifts of love, And still is ours today.

Appendix C: Performance History[73]

DATE	ENSEMBLE	CONDUCTOR
10/24 & 10/26/1958*	Pittsburgh Symphony Orchestra	William Steinberg
10/31 & 11/1/1958	Boston Symphony Orchestra	Lukas Foss
3/6/1959	Pittsburgh Symphony Orchestra	?
4/9 - 4/12/1959	New York Philharmonic	Leonard Bernstein
1/3 & 1/5/1960**	Buffalo Philharmonic Orchestra	Lukas Foss
11/24 & 11/26/1960	Cleveland Orchestra	?
12/10 & 12/12/1964	Cleveland Orchestra	?
1/18 & 1/19/1963***	Cincinnati Symphony Orchestra	Lukas Foss
10/23 – 10/25/1969	Atlanta Symphony Orchestra	?

* World Premiere

** Only Movement 2 performed

*** Only Movement 3 performed

[73] The information from Appendix C is drawn from a combination of Karen Perons's *Bio-Bibliography* and communication with Foss's lifelong publisher, Carl Fischer.